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TRANSMITTAL FORM		Application Number		09/681,471	
(to be used for all correspondence after initial filing)		Filing Date		April 13, 2001	
		First Named Inventor		Silva-Craig et al.	
		Art Unit		2172	
		Examiner Name		Baoquoc N. To	
		Attorney Docket Number		15-IS-5715 (13035US01)	
Total Number of Pages in This Submission		78			
ENCLOSURES (check all that apply)					
<input checked="" type="checkbox"/> Fee Transmittal Form		<input type="checkbox"/> Drawing(s)		<input type="checkbox"/> After Allowance Communication to TC	
<input type="checkbox"/> Fee Attached		<input type="checkbox"/> Licensing-related Papers		<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences	
<input type="checkbox"/> Amendment/Reply		<input type="checkbox"/> Petition		<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)	
<input type="checkbox"/> After Final		<input type="checkbox"/> Petition to Convert to a Provisional Application		<input type="checkbox"/> Proprietary Information	
<input type="checkbox"/> Affidavits/declaration(s)		<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address		<input type="checkbox"/> Status Letter	
<input type="checkbox"/> Extension of Time Request		<input type="checkbox"/> Terminal Disclaimer		<input checked="" type="checkbox"/> Return-Receipt Postcard	
<input type="checkbox"/> Express Abandonment Request		<input type="checkbox"/> Request for Refund		<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):	
<input type="checkbox"/> Information Disclosure Statement		<input type="checkbox"/> CD Number of CD(s) _____		BRIEF ON APPEAL	
<input type="checkbox"/> Certified Copy of Priority Document(s)		<input type="checkbox"/> Landscape Table on CD			
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application		Remarks			
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53					
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT					
Firm or Individual Name		McAndrews Held & Malloy, Ltd.			
Name (Print/type)		Christopher R. Carroll		Registration No. (Attorney/Agent) 52,700	
Signature		<i>Christopher R. Carroll</i>		Date: December 19, 2006	
EXPRESS MAIL DEPOSIT					
"Express Mail" mailing label number : EV 726844785 US					
Date of Deposit December 19, 2006.					

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**FEE TRANSMITTAL  
for FY 2005**

Complete if Known

Application Number	09/681,471
Filing Date	April 31, 2001
First Named Inventor	Silva-Craig et al.
Examiner Name	To, Baoquoc N.
Art Unit	2162
Attorney Docket No.	15-IS-5715 (13035US01)

☐ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$) 500.00

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 50-2401 Deposit Account Name: GEMS-IT

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**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid(\$)
	Fee (\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES****Fee Description**

	Fee(\$)	Small Entity Fee(\$)
Each claim over 20, or for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee(\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee	Fee Paid (\$)
-20 or HP	x	=				

HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee(\$)	Fee Paid (\$)
-3 or HP	x	=	

HP = highest number of independent claims paid for, if greater than 3

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee(\$)	Fee Paid(\$)
-100	/50	(round up to a whole number)	x	=

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: BRIEF ON APPEAL 500.00**SUBMITTED BY**

Signature	<u>Christopher R. Carroll</u>	Registration No. (Attorney/Agent)	52,700	Telephone	(312)775-8000
Name (print/type)	Christopher R. Carroll	Date	December 19, 2006		



Brief on Appeal  
Application No. 09/681,471

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In the Application of:

Silva-Craig et al.

Application No.: 09/681,471

Filed: April 13, 2001

For: Application Service Provider  
Based Redundant Archive  
Services for Medical Archives  
and/or Imaging Systems

Examiner: Baoquoc N. To

Group Art Unit: 2172

Attorney Docket No.: 15-IS-5715

**CERTIFICATION UNDER 37 C.F.R. §§ 1.08, 1.10**

I hereby certify that this document is being deposited with the United States Postal Service on December 19, 2006, in an envelope addressed to the Mail Stop Appeal Brief- Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, utilizing the "Express Mail Post Office to Addressee" service of the United States Postal Service under Mailing Label No. EV 726844785 US.

  
Christopher R. Carroll

**BRIEF ON APPEAL**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an Appeal from a Final Office Action mailed June 13, 2006, in which claims 1-8, 11-20, 23-36 and 53-54 were rejected. An Advisory Action dated September 19, 2006 maintained these rejections and entered a Supplemental Amendment dated August 31, 2006.

Brief on Appeal  
Application No. 09/681,471

This Appeal Brief is submitted in support of the Notice of Appeal filed on October 19, 2006 and in response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed November 20, 2006. This Brief is submitted within one month or thirty days from the mailing date of the Notification of Non-Compliant Appeal Brief. The Applicant respectfully requests that the Board of Patent Appeals and Interferences reverse the final rejection of claims 1-8, 11-20, 23-36 and 53-54 of the present application.

**REAL PARTY IN INTEREST**

The real party in interest is GE Medical Systems Information Technologies, Inc. GE Medical Systems Information Technologies, Inc. is a Wisconsin corporation having a place of business at 8200 West Tower Avenue, Milwaukee, Wisconsin 53223-3293, owns the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefor, as set forth in the Assignment filed with the present application and recorded on Reel 011920, frame 0327. General Electric Company, a corporation organized under the laws of the state of New York, and having a place of business at 1 River Road, Schenectady, New York 12345, owns 100% of GE Medical Systems Information Technologies, Inc.



**RELATED APPEALS AND INTERFERENCES**

An appeal was previously filed for this same patent application (U.S. Patent Application Serial No. 09/681,471). The Notice of Appeal for this previous appeal was filed on February 22, 2005. The Appeal Brief for this previous appeal was filed on April 22, 2005. The Appeal Brief for this previous appeal was re-submitted on August 5, 2005 in response to a Notification of Non-Compliant Appeal Brief mailed July 28, 2005.

No Examiner's Answer was provided in response to the previous Appeal Brief. Instead, the Examiner re-opened prosecution in response to the Appeal Brief submitted on August 5, 2005.<sup>1</sup> Therefore, no decision was rendered by any court or the Board in relation to the present application. Accordingly, no copies of any decisions are included in the "Related Proceedings Appendix."

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<sup>1</sup> See Office Action of Dec. 14, 2005 at page 2 (see Evidence Appendix to the present Appeal Brief).

### **STATUS OF THE CLAIMS**

The following is a list of all claims and the status of each claim in the pending application:

- Claims 1-8, 11-20, 23-36 and 53-54 are rejected; and
- Claims 9-10, 21-22 and 37-52 are canceled.

Claims 1-8, 11-20, 23-36 and 53-54 are pending in the present application. Pending claims 1-8, 11-20, 23-24, 30, 35-36 and 53-54 have been rejected under 35 U.S.C. § 103(a) and are the subject of this appeal.<sup>2</sup> Specifically, claims 1-2, 5 and 7-8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,678,703 to Rothschild et al. (“Rothschild”) in view of U.S. Patent No. 6,081,809 to Kumagai et al. (“Kumagai”), and further in view of U.S. Patent No. 6,038,564 to Sameshima et al. (“Sameshima”).<sup>3</sup>

Claims 3-4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of U.S. Patent Application Pub. No. 2002/0083192 to Alisuag (“Alisuag”).<sup>4</sup>

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<sup>2</sup> Claims 1-8, 11-20 and 23-24 were previously rejected under 35 U.S.C. § 112, ¶ 2. (See Final Final Office Action of June 13, 2006 at page 2.) However, this rejection was overcome by Applicant’s Amendment mailed Aug. 31, 2006. (See Amendment mailed Aug. 31, 2006 and Advisory Action dated Aug. 24, 2006 at page 2 (the Examiner only maintained the § 103(a) rejections and dropped the § 112, ¶ 2 rejections).)

<sup>3</sup> Final Final Office Action of June 13, 2006 at page 3.

<sup>4</sup> Final Final Office Action of June 13, 2006 at page 6.

Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of U.S. Patent No. 5,902,981 to Dethloff (“Dethloff”).<sup>5</sup>

Claims 11-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of U.S. Patent No. 6,678,764 to Parvulescu et al. (“Parvulescu”).<sup>6</sup>

Claims 15-18 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of U.S. Patent No. 6,338,433 to Drexler (“Drexler”).<sup>7</sup>

Claim 19 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Alisuag.<sup>8</sup>

Claim 23 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Dethloff.<sup>9</sup>

Claim 24 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Parvulescu.<sup>10</sup>

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<sup>5</sup> Final Final Office Action of June 13, 2006 at page 7.

<sup>6</sup> Final Final Office Action of June 13, 2006 at page 7.

<sup>7</sup> Final Final Office Action of June 13, 2006 at page 9.

<sup>8</sup> Final Final Office Action of June 13, 2006 at page 11.

<sup>9</sup> Final Final Office Action of June 13, 2006 at page 11.

<sup>10</sup> Final Final Office Action of June 13, 2006 at page 12.

Claims 25-29, 31-34 and 53-54 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, and in view of Sameshima, and further in view of Parvulescu.<sup>11</sup>

Claim 30 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima, and further in view of Parvulescu and Alisuag.<sup>12</sup>

Claims 35-36 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima, and further in view of Parvulescu and Dethloff.<sup>13</sup>

#### **STATUS OF AMENDMENTS**

Subsequent to the final rejection of claims 1-8, 11-20, 23-36 and 53-54 in the Office Action mailed June 13, 2006, proposed amendments to claims 1 and 15 were included in Amendments filed August 12 and 31, 2006.<sup>14</sup> The proposed amendments to claims 1 and 15 were entered by the Examiner, as stated in the Advisory Action mailed September 19, 2006.<sup>15</sup>

#### **SUMMARY OF CLAIMED SUBJECT MATTER**

The following is a concise explanation of the subject matter defined in each of the independent claims involved in this appeal, namely independent claims 1, 15, and 25.

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<sup>11</sup> Final Final Office Action of June 13, 2006 at pages 12-13.

<sup>12</sup> Final Final Office Action of June 13, 2006 at page 17.

<sup>13</sup> Final Final Office Action of June 13, 2006 at page 17.

<sup>14</sup> Amendments of Aug. 12 and 31, 2006.

The present invention relates to an Application Service Provider (“ASP”) based redundant archive services for medical archives and/or imaging systems. Healthcare practitioners employ medical data for the diagnosis and treatment of patients.<sup>16</sup> This medical data can include medical images, reports, applications and other data and may be obtained from direct examination of a patient, from other healthcare practitioners, from medical diagnostic equipment, and/or other sources.<sup>17</sup>

Medical data may be stored in a computer database such as a Picture Archiving and Communication System (“PACS”).<sup>18</sup> A PACS system can be used to obtain, store, and distribute medical data, to archive medical data in electronic form in a central location, to share medical data among several users, for example.<sup>19</sup> With the increasing use of PACS systems in the diagnosis and treatment of patients, there is increased need for greater backup and redundancy storage capabilities for medical data. In addition, centralized access to medical data can also improve diagnosis and treatment of patients through the ease of retrieval by multiple users and/or multiple locations. Also, diagnosis and/or treatment of a patient may be impaired if the data becomes lost or corrupted. Thus, a need exists for reliability in the storage of medical data to improve diagnosis and treatment of patients.

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<sup>15</sup> Advisory Action of Sept. 19, 2006.

<sup>16</sup> Specification of Pending Application Serial No. 09/681,471 at page 1, lines 5-11 (herein referred to as “‘471 Specification”).

<sup>17</sup> ‘471 Specification at page 1, lines 5-11.

<sup>18</sup> ‘471 Specification at page 1, lines 12-18.

<sup>19</sup> ‘471 Specification at page 2, lines 1-8.

There is also a need for easier data manipulation and/or preservation between medical diagnostic system upgrades. For example, there is a need for a system to reduce manual transfer and/or re-creation of data, applications, and/or operating system information between an old medical diagnostic or storage system and a new or replacement system.

The present invention provides a centralized remote data storage and retrieval system comprising a data source (reference number 110 in Figure 1), a remote data store (reference number 120 in Figure 1), a front-end connection (reference number 130 in Figure 1), a back-end connection (reference number 135 in Figure 1), a status monitor (reference number 140 in Figure 1) and an access authenticator (reference number 145 in Figure 1).<sup>20</sup> The data source (reference number 110 in Figure 1) provides medical data, the status monitor (reference number 140 in Figure 1) controls the transfer of the medical data from the data source (reference number 110 in Figure 1) to the remote data store (reference number 120 in Figure 1), and the remote data store (reference number 120 in Figure 1) receives and stores the medical data.<sup>21</sup> The access authenticator (reference number 145 in Figure 1) authenticates access of the remote data store (reference number 120 in Figure 1) by the data source (reference number 110 in Figure 1) and/or access of

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<sup>20</sup> '471 Specification at page 6, lines 1-6.

<sup>21</sup> '471 Specification at page 6, lines 1-6.

the data store (reference number 110 in Figure 1) by the remote data store (reference number 120 in Figure 1) in order to copy, transfer or restore medical data.<sup>22</sup>

The data source (reference number 110 in Figure 1) is a source or point of origin of medical data and may include a picture archiving and communications system (PACS), a medical diagnostic imaging system, a database system, a computer system, a server, a hard disk drive, a terminal, or other medical data storage system, for example.<sup>23</sup>

The remote data store (reference number 120 in Figure 1) is a device that archives or stores medical data, such as an application service provider, a server, a redundant disk array, a Redundant Array of Independent Disks (“RAID”) drive, a hard disk drive, an archive, a database system, a computer system, or other central data storage system, for example.<sup>24</sup>

The front- and back-end connections (reference numbers 130 and 135 in Figure 1) facilitate the bi-directional transmission and/or reception of files, commands, instructions, communication information, and/or other data, for example, between (1) the data source and the status monitor (and access authenticator) and (2) the status monitor (and access authenticator) and the remote data store.<sup>25</sup> The front-end connection and the back-end

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<sup>22</sup> ‘471 Specification at page 8, lines 18-31.

<sup>23</sup> ‘471 Specification at page 6, lines 15-23.

<sup>24</sup> ‘471 Specification at page 7, lines 1-16.

<sup>25</sup> ‘471 Specification at page 7, lines 17-32 and page 8, lines 1-3.

connection may compose a data source/data store connection to transfer data between the data source and the remote data store.<sup>26</sup>

The status monitor monitors the data source, the remote data store, the front-end connection, and/or the back-end connection.<sup>27</sup> The status monitor monitors and/or controls activities such as:

- requests by the data source and/or remote data store,
- data at the data source and/or remote data store,
- data traveling over the front-end connection and/or the back-end connection, and/or
- commands and/or instructions traveling over the front-end connection and/or the back-end connection, for example.

The present invention provides for three types of medical data archiving actions or steps to be performed. Specifically, the present invention provides for (1) the **archiving** of medical data obtained at the data source at the remote data store, (2) the **restoring** of archived medical data from the remote data store to the data source, and (3) the **copying** of medical data originally obtained at a first data source (and archived at the remote data store) to a second data source.<sup>28</sup>

The subject matter defined in independent claims 1 and 25 relates to a system (claim 1) and a method (claim 25) for the archiving of medical data. For the archiving of

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<sup>26</sup> '471 Specification at page 7, lines 28-32 and page 8, lines 1-3.

<sup>27</sup> '471 Specification at page 8, lines 4-17.

<sup>28</sup> '471 Specification at page 9, lines 14-29.



medical data, the data is first obtained using the data source.<sup>29</sup> The data source may then locally store a copy of the medical data.<sup>30</sup> Next, the status monitor may prompt the data source for an authentication code.<sup>31</sup> If the access authenticator determines that the authentication code matches a predetermined authentication code, then the status monitor triggers an archive request to be sent to the remote data store and instructs the data source to transmit the medical data to the remote data store.<sup>32</sup> Once the data source transmits the medical data to the remote data store, the medical data has been archived. In this way, medical data obtained by a data source is archived so as to provide a back-up in case the data stored at the data source becomes corrupted, lost, or otherwise unreadable.

The subject matter defined in independent claim 15 relates to a system for the restoring of medical data and/or the copying of medical data. For the restoring of medical data, the data is first obtained at the data source and archived at the remote data store, as described above in regard to the archiving of medical data.<sup>33</sup> Next, an error in the medical data, such as data loss, data corruption, and/or system failure, is discovered.<sup>34</sup> The status monitor may then prompt the data source for an authentication code.<sup>35</sup> If the access authenticator determines that the authentication code matches a predetermined authentication code, then the status monitor triggers a restore request to be sent to the

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<sup>29</sup> '471 Specification at page 9, lines 14-29.

<sup>30</sup> '471 Specification at page 9, lines 14-29.

<sup>31</sup> '471 Specification at page 10, lines 1-18.

<sup>32</sup> '471 Specification at page 10, lines 1-28 and page 11, lines 1-9.

<sup>33</sup> '471 Specification at page 11, lines 26-31.

<sup>34</sup> '471 Specification at page 12, lines 1-7.

remote data store and instructs the remote data store to restore the medical data to the data source.<sup>36</sup> Once the remote data store transfers the medical data to the data source, the data has been restored. In this way, an error in the medical data is repaired by restoring the erroneous data with non-erroneous data archived at the remote data store.

For the copying of medical data, the data is first obtained at the data source and archived at the remote data store, as described above in regard to the archiving of medical data.<sup>37</sup> Next, the status monitor may detect a need to copy archived medical data to another data source.<sup>38</sup> For example, medical data may be obtained on a first data source. A second data source, such as a new, upgraded or replacement data source may then be installed.<sup>39</sup> In order to ensure that the same medical data stored at the first data source is also stored at the second data source, the medical data previously obtained using the first data source and archived at the remote data store may be copied from the remote data store to the second data source.

Once the status monitor detects a need to copy medical data to a second data source, the status monitor may then prompt the data source for an authentication code.<sup>40</sup> If the access authenticator determines that the authentication code matches a predetermined authentication code, then the status monitor triggers a copy request to be

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<sup>35</sup> '471 Specification at page 12, lines 8-23.

<sup>36</sup> '471 Specification at page 12, lines 8-32 and page 13, lines 1-10.

<sup>37</sup> '471 Specification at page 13, lines 20-26.

<sup>38</sup> '471 Specification at page 13, lines 20-26.

<sup>39</sup> '471 Specification at page 13, lines 27-31 and page 14, lines 1-13.

<sup>40</sup> '471 Specification at page 13, lines 27-31 and page 14, lines 1-13.

sent to the remote data store and instructs the remote data store to copy the medical data to the second data source.<sup>41</sup> Once the remote data store transfers the medical data to the second data source, the data has been copied. In this way, medical data obtained at one or more data sources and archived at the remote data store, may be copied to one or more additional data sources.

Thus, the subject matter defined in independent claims 1, 15 and 25 relate to systems and methods for the archiving, restoring and copying of medical data in a PACS system in order to protect against the loss or corruption of data and for easier copying of medical data among data sources.

#### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection presented for review on appeal are:

- (1) The rejection of claims 1-2, 5 and 7-8 under 35 U.S.C. § 103(a) (2005) as being unpatentable over Rothschild in view of Kumagai, and further in view of Sameshima.
- (2) The rejection of claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Alisuag.
- (3) The rejection of claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Dethloff.
- (4) The rejection of claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and Sameshima, and further in view of Parvulescu.

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<sup>41</sup> '471 Specification at page 14, lines 14-32.

- (5) The rejection of claims 15-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler.
- (6) The rejection of claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Alisuag.
- (7) The rejection of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Dethloff.
- (8) The rejection of claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler, and further in view of Parvulescu.
- (9) The rejection of claims 25-29, 31-34 and 53-54 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, and in view of Sameshima, and further in view of Parvulescu.
- (10) The rejection of claim 30 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima, and further in view of Parvulescu and Alisuag.
- (11) The rejection of claims 35-36 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Sameshima, and further in view of Parvulescu and Dethloff.

The Applicant respectfully contends that each of the above rejections is improper and each of the above claims should be allowable.

### **ARGUMENT**

In order to more clearly set forth the patentable differences between the various groups of claims listed above and the references cited by the Examiner in each of his rejections, the Applicant has grouped the claims according to common patentable limitations appearing in each claim. The Applicant respectfully submits that claims 1-8, 11-20, 23-36 and 53-54 are distinguishable over the prior art.

**I. The Law Of Obviousness Under 35 U.S.C. § 103(a)**

The Examiner has rejected all pending claims under 35 U.S.C. § 103(a), which states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.<sup>42</sup>

There are “three basic criteria” for “a *prima facie* case of obviousness.”

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure.<sup>43</sup>

The Final Office Action of September 22, 2004 violates the last of the three basic legal criteria set out above for establishing a *prima facie* case, which is: “**all** the claim limitations must be taught or suggested by the prior art.”<sup>44</sup>

In ascertaining the differences between the prior art and the claims of a pending application under 35 U.S.C. § 103(a), the analysis “is not whether the differences **themselves** would have been obvious, but whether the claimed invention **as a whole**

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<sup>42</sup> 35 U.S.C. § 103(a).

<sup>43</sup> MANUAL OF PATENT EXAMINING PROCEDURE § 2142 (8th ed., rev. 2, May 2004) at 128 (citing *In re Vaeck*, 947 F.2d. 488 (Fed. Cir. 1991)) (hereinafter cited at “MPEP”).

would have been obvious.”<sup>45</sup> Moreover, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.”<sup>46</sup> As described in detail below, none of the references cited by the Examiner teach or suggest all limitations of the appealed claims.

A critical step in analyzing the patentability of claims pursuant to § 103(a) is casting the mind back to the time of invention, to properly consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field.<sup>47</sup> The proper obviousness analysis under 35 U.S.C. § 103(a) must occur at the time the invention was made and avoid the impermissible use of hindsight:

To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical “person of ordinary skill in the art” when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention would have been obvious at that time to that person. . . . The tendency to resort to “hindsight” based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.<sup>48</sup>

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<sup>44</sup> MPEP § 2143.03 at 133 (citing *In re Royka*, 490 F.2d 981 (C.C.P.A. 1974)) (emphasis added).

<sup>45</sup> MPEP § 2141.02 at 124-125 (citing *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fed. Cir. 1983)).

<sup>46</sup> MPEP § 2143.03 at 133 (quoting *In re Wilson*, 424 F.2d 1382, 1385 (C.C.P.A. 1970)).

<sup>47</sup> *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000); *see also In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999); *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 840 F.2d 902, 907 (Fed. Cir. 1988) (cautioning against employing hindsight by using the appellant’s disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art).

<sup>48</sup> MPEP § 2142 at 128.

In applying a reference under 35 U.S.C. § 103(a), the “reference must be considered in its entirety, i.e., as a **whole**, including portions that would lead away from the claimed invention.”<sup>49</sup> In other words, the cited prior art as a whole must be considered, taking into account the negative teachings that would lead a person of ordinary skill away from the patented invention, as well as the teachings unfavorable to patentability.<sup>50</sup> The Federal Circuit held in the *Dow* case:

In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for **the person of ordinary skill is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention**. The Commissioner argues that since the PTO is no longer relying on Farmer or the Bacon and Farmer article, the applicant is creating a “straw man”. It is indeed pertinent that these references teach against the present invention. Evidence that supports, rather than negates, patentability must be fairly considered.<sup>51</sup>

Moreover, the law gives significant weight to the fact that the only prior art on point teaches away from limitations of a pending claim.<sup>52</sup>

Finally, as a dependent claim includes all the limitations of the base claim(s) from which it depends, “[i]f an independent claim is nonobvious under 35 U.S.C. § 103, then

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<sup>49</sup> MPEP § 2141.02 at 127 (citing *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983)).

<sup>50</sup> *In re Dow Chemical Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988).

<sup>51</sup> *Id.* (emphasis added).

<sup>52</sup> See *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1374 (Fed. Cir. 2000) (“The absence of a convincing discussion of the specific sources of the motivation to combine the prior art references, particularly in light of the strength of prior art teaching away from the use of the Houghton process, is a critical omission in the district court’s obviousness analysis, which mainly discusses the ways that the multiple prior art references can be combined to read on the claimed invention.”).

any claim depending therefrom is nonobvious.”<sup>53</sup> In other words, if an independent claim is nonobvious, then all claims depending on the independent claim are also nonobvious.

The Applicant now presents arguments in favor of the patentability of pending claims 1-8, 11-20, 23-36 and 53-54.

**II. The Rejection Of Claims 1-2, 5, 7 And 8 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Kumagai And Sameshima Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claims 1-2, 5 and 7-8 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai and further in view of Sameshima.<sup>54</sup> For the sake of simplicity, Applicant has elected to only argue the substantive merits of the patentability of independent claim 1 in this group. If claim 1 is found to be patentable, then claims 2, 5 and 7-8, which depend from claim 1, must also be found patentable.<sup>55</sup>

Independent claim 1 recites (with emphasis added):

1. A central medical data archiving system, said system comprising:

a medical data source providing medical data, wherein said medical data comprises at least one of a medical image, a medical patient report, and a medical application;

a status monitor for controlling a transfer of said medical data from said data source to a centralized remote data store, wherein said status monitor monitors operations

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<sup>53</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

<sup>54</sup> Final Final Office Action of June 13, 2006 at page 3.



occurring at said data source and triggers an archive request after said medical data is obtained by said data source, said data source transmitting said medical data to said centralized remote data store when said archive request is triggered; and

a centralized remote medical data store receiving said medical data and storing said medical data, wherein said centralized remote medical data store comprises an application service provider.

Rothschild is the foundational reference relied upon by the Examiner in rejecting all claims of the present application. Rothschild is directed to a system and method for managing medical images at a central data management system.<sup>56</sup> Through their invention, Messrs. Rothschild and Prasad have attempted to improve on the distribution of electronic records and medical images. The Rothschild patent describes a medical imaging system, a central data management system, and one or more remote image viewing systems.<sup>57</sup> Within the medical imaging system, medical images of a patient are obtained and transferred to a local image workstation.<sup>58</sup> The local image workstation stores the images locally and then automatically pushes, or transfers, the images from the medical imaging system to the central data management system.<sup>59</sup> Once the images are

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<sup>55</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

<sup>56</sup> Rothschild at Abstract.

<sup>57</sup> Rothschild at col. 18, line 39 through col. 19, line 4.

<sup>58</sup> Rothschild at col. 18, lines 42-51.

<sup>59</sup> Rothschild at col. 18, lines 53-56.

received at the central data management system, the images are once again stored at that location and are automatically pushed, or transferred, to the remote viewing system(s).<sup>60</sup>

At each instance of transferring the images (once from the imaging system to the central data management system and a second time from the central data management system to the remote viewing system), the images are automatically pushed or transferred from one point to another as soon as possible.<sup>61</sup> In other words, the images are pushed, without any trigger or request, from a first location to a second location as soon as possible. The purpose of this feature of the Rothschild invention is to ensure that images are routed to doctors at remote viewing systems as soon as possible:

In contrast to other known efforts at providing a medical image management ASP, the present invention employs “push” delivery of medical images directly to the referring physician’s office or offices, which may be completed according to the invention **immediately after generating the image at the medical imaging center**. The use of the push methodology directly addresses the needs of referring physicians prescribe [sic] the imaging study in order to diagnose or treat a patient. Clearly, these healthcare providers want the images delivered to their office(s) just as they have the [x-ray] films delivered today. With push delivery of electronic image records according to the invention, the image delivery will take place in the background and be on the physician’s desktop computer ready for review whenever the doctor is ready to view them.<sup>62</sup>

Therefore, Rothschild describes a system and method that obtains and transfers images along a routing path (that includes the imaging, data management, and viewing systems), where the images are pushed from one point to another along the path as soon as

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<sup>60</sup> Rothschild at col. 18, lines 63-67.

<sup>61</sup> Rothschild at col. 18. lines 53-56 and lines 63-67.

possible. While the images may be locally stored at each point along the routing path, the images are automatically routed, as soon as possible, from one point to another, without waiting for a trigger from any other device, processor, or process. That is, each location in the routing path independently sends the images to the next point in the routing path without waiting for any other device, processor or process to command or instruct the location to transfer the image to the next point in the path.

However, Rothschild does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Instead, Rothschild merely describes a local image workstation that “pushes” an electronic record to the central data management system once data is obtained by the local image workstation.<sup>63</sup> The local image workstation is not triggered by any other component of the system to transmit the image data. Instead, the local image workstation merely transmits the data once it is obtained.

The local image workstation of Rothschild does not wait for any trigger, request, command, or directive from a status monitor. In fact, Rothschild clearly distinguishes the “pushing” of data by the local image workstation from triggering a transmission of

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<sup>62</sup> Rothschild at col. 23, lines 40-54 (emphasis added).

<sup>63</sup> Rothschild at col. 18, lines 53-56.

medical data by contrasting the “pushing” of data with the “pulling” of data.<sup>64</sup> For example, Rothschild defines the “pushing” of data as the transmission of data as soon as the data is obtained, without waiting for any request for the data or directive from a status monitor to transmit the data.<sup>65</sup> By way of contrast, Rothschild defines the “pulling” of data as the transmission of data after a request is made for the data by a user.<sup>66</sup> Rothschild clearly states that the central data management system “pushes” the data and does not “pull” the data. Therefore, a data source in Rothschild does not wait for any trigger to transmit medical data for storage. Thus, Rothschild does not teach or suggest elements of at least claim 1.

The Examiner contends that the archiving of data locally at a data source followed by the automatic “pushing” of the data by the data source to a central management system in Rothschild is equivalent to a status monitor (1) monitoring operations at a data source and (2) triggering an archive request (which causes the data to be transmitted to a centralized remote data store) after the data is obtained by the source, as recited in claim 1:

Rothschild’s disclosure suggests the after locally archive then pushes to the central data management system 30. The triggering occurs at the local image workstation wherein the data is pushed to the central management system only after the data locally archiving.<sup>67</sup>

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<sup>64</sup> Rothschild at col. 18, lines 53-56 and col. 22, lines 25-43.

<sup>65</sup> Rothschild at col. 22, lines 25-28.

<sup>66</sup> Rothschild at col. 22, lines 28-30.

<sup>67</sup> Advisory Action of Sept. 19, 2006.

However, there is no support in Rothschild for the Examiner's argument. Notably, the Examiner does not cite to any portion of Rothschild in support of his argument. As described above, the mere fact that Rothschild describes the automatic pushing of data from a data source to a central data management system after the data is obtained and locally archived does not establish that any third party or component is monitoring the data source and triggering an archive request. That is, the Examiner fails to establish what component of the system in Rothschild (1) monitors operations at a data source and (2) triggers an archive request.

The elements of claim 1 require a data source, a status monitor and a centralized remote data store. As recited in claim 1, the data source provides data, the status monitor monitors operations occurring at the data source and triggers an archive request and the centralized remote data store receives and stores the data when the archive request is triggered by the status monitor. Assuming for the sake of argument that the Examiner's contentions are true, then Rothschild only describes a local image workstation acting as the data source recited in claim 1 and a central data management system acting as the centralized remote data store also recited in claim 1. The Examiner fails to establish that Rothschild describes any status monitor separate from either the local image workstation or the centralized remote data store.

In short, the Examiner has failed to establish that any component of the system in Rothschild separate from the data source and central data management system both monitors operations occurring at the data source and triggers an archive request to cause

the data to be transmitted to the central data management system, as recited in claim 1. Therefore, Rothschild fails to teach or suggest a status monitor that monitors operations occurring at a data source and triggers an archive request after data is obtained by the data source, as recited in claim 1.

The Examiner also relies upon Kumagai in his rejection of claim 1. Kumagai describes an interpolative method and system for producing medical charts and monitoring and recording patient conditions. However, Kumagai does not remedy the shortcomings of Rothschild described above. Kumagai does not teach or suggest a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1.

Kumagai describes a computer software system for medical use, and more particularly, to a system which collects, organizes and integrates various kinds of medical data collected on a regular or irregular basis from different sources such as doctors, nurses, laboratories, drug companies and hospitals.<sup>68</sup> The Examiner contends that Kumagai does describe the status monitor recited in claim 1 because Kumagai purportedly discloses the collection of medical data “at irregular intervals from different human and machine sources.”<sup>69</sup> The Examiner continues:

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<sup>68</sup> Kumagai at col. 1, lines 11-16.

<sup>69</sup> Advisory Action of Sept. 19, 2006.

Some data regularly comes from various kinds of monitoring machines and directly enters the processing unit memory of file server 11 . . .” (col. 14, lines 61-67 to col. 15, lines 1-45). Kumagai suggests the concept of collecting data from data monitoring machine and stores in the memory of the file server 11. Kumagai is not explicitly but rather implicitly to indicate the data monitoring machine monitor the collect data from different human or machine sources and triggers the collection based on the irregular interval in which can be time based event or even an operator.<sup>70</sup>

Thus, the Examiner contends that Kumagai discloses “data monitoring machines” that both collect data from different sources and trigger the collection of the data based on an irregular interval. However, Kumagai does not disclose any functionality. First, the entirety of Kumagai’s disclosure with respect to the “monitoring machines” is limited to the following:

FIG. 31 illustrates the data processing flow in the DBMS with NTA, although other combinations of the root and progeny database tables are possible. Most medical data is collected at irregular intervals from different human or machine sources, and is stored as a record in databases in the server computers. **Some data regularly comes from various kinds of monitoring machines and directly enters the processing unit and memory of file server 11.** Records of the database table are extracted at hourly intervals, and the average, maximum and minimum values for the data in those records are calculated. A progeny database table is reconstructed with an hourly time axis by the DBMS with NTA. Then the reconstructed database with the hourly time axis serves as the root database for progeny database tables in the trisection or daily time axis. The database with the daily time axis plays the role of the root database for the progeny database tables in the weekly or monthly time axis.<sup>71</sup>

Kumagai does not include any other disclosure in its specification describing the functionality of these “various kinds of monitoring machines.” Notably, Kumagai does

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<sup>70</sup> Advisory Action of Sept. 19, 2006.

not state whether these “monitoring machines” are the data sources themselves or some other machine. Therefore, Kumagai cannot describe a “monitoring machine” that acts as a status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, as recited in claim 1.

In addition, Kumagai does not state what these “monitoring machines” monitor. That is, the status monitor of claim 1 monitors operations occurring at a data source. However, it is unknown what the “monitoring machines” of Kumagai monitor. The “monitoring machines” could monitor time, operations occurring in a system component other than a data source, or some other event. Yet, Kumagai does not teach or suggest that the “monitoring machines” monitor operations occurring at a data source.

In sum, Kumagai does not disclose any status monitor as recited in claim 1. Kumagai only describes monitoring machines without providing any disclosure of what these machines consist of or the functionality of the machines. Therefore, Kumagai also does not teach or suggest the status monitor of claim 1.

The Examiner also relies upon Sameshima in his rejection of claim 1. Sameshima describes a method and apparatus for integrating distributed information. However, Sameshima does not remedy the shortcomings of Kumagai and Rothschild. Like Kumagai and Rothschild, Sameshima also does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data

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<sup>71</sup> Kumagai at col. 14, line 61 to col. 15, line 10.



source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1.

Sameshima only describes a plurality of processing devices that mutually communicate data to one another via a transmission medium.<sup>72</sup> The Examiner contends that Sameshima discloses the status monitor recited in claim 1:

Sameshima discloses the monitoring system to collect data based on an event. Further, Sameshima is more explicit regarding a status monitoring wherein the status monitor control table 234 sets conditions to start/end the collection of the data set in the set in data integration management table 233. Status control processing 225 is a program for detecting . . . (col. 5, lines 41-51). Sameshima's teaching, clearly shows that the monitoring occur at the processing device by setting conditions to start/end the collection of the data set.<sup>73</sup>

Thus, the Examiner argues that a "status control processing 225" entity is a status monitor that monitors operations occurring at a data source and triggers an archive request as recited in claim 1. However, the "status control processing 225" entity is a program that only monitors events occurring internally, and not at an external device such as a data source. That is, the "status control processing 225" is a software structure operating in a processing device that only detects events occurring within that same processing device, and not at or within any device external to the processing device, such as a data source:

A data integration management table 233 defines reference sources of respective data to be integrated and the names of the data, and also defines an output option, etc. when the integrated data are delivered to the

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<sup>72</sup> Sameshima at col. 4, lines 37-40

<sup>73</sup> Advisory Action of Sept. 19, 2006.

application programs 211, 121. Filtering processing 222 is a program for detecting events such as an event based on a periodic timer in the self processing device, an event based on data renewal and an event based on a message received from another processing device, obtaining the data in the self processing device through the data access processing 221 or obtaining the integrated data by referring to the event linking data table 232, the data access management table 231 and the data integration management table 233, and transmitting data obtained through the communication management 223 to another processing device which requests the data or the data integration processing 224 of the self processing device. . . . A status control table 234 sets conditions to start/end the collection of the data set in the event linking data table 232 and the integration of the data set in the data integration management table 233. Status control processing 225 is a program for detecting an event such as message reception, data renewal or the like, referring to the status control table 234 to detect the timing of starting/ending the data collection or the data integration, and activating relational control information of the event linking data table 232 and the data integration management table 233.<sup>74</sup>

Notably, Sameshima describes the “data renewal” event as an event that is triggered internally at a processing device--that is, that data renewal depends on the detection of an event occurring within the processing device and not at or within an external device, such as a data source.<sup>75</sup> In addition, Sameshima describes the data table 1111, upon which the data renewal event is based, is located within the same processing device S3.<sup>76</sup>

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<sup>74</sup> Sameshima at col. 5, lines 16-51 (emphasis added).

<sup>75</sup> Sameshima at col. 15, lines 27-42 (“In response to the renewal of the data table 1111 as a trigger event, the filtering processing 222 of the processing device S3 refers to the event linking data table 232 to transmit the data of the data table 1111 as a message 1121 to the other processing devices S1 and S4.”).

<sup>76</sup> Sameshima at Figure 14

Therefore, Sameshima is limited to describing software structures that monitor events occurring internally to the processing device upon which the software structure operations. Accordingly, Sameshima cannot teach or suggest a status monitor that monitors operations occurring at a data source (that is different from the status monitor) and triggers an archive request, as recited in claim 1. At most, Sameshima describes a device that monitors occurring within the same device. Accordingly, Sameshima cannot teach or suggest elements of at least claim 1.

The Examiner provides no other support for his assertion that pending claim 1 is obvious in view of Rothschild, Kumagai and Sameshima. Assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai and Sameshima, the combination also fails to teach or suggest elements of claim 1. As described above, each of these references fails to teach or suggest a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Therefore, a combination of these references also fails to teach or suggest elements of claim 1.

Each of pending claims 2, 5 and 7-8 depends from claim 1. Therefore, as each of Rothschild, Kumagai and Sameshima, whether considered alone or in combination, fails to teach or suggest elements of claim 1, Applicant respectfully submits that the

Examiner's rejection of claims 1, 2, 5 and 7-8 under 35 U.S.C. § 103(a) should not be allowed to stand.

**III. The Rejection Of Claims 3 And 4 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Kumagai, Sameshima And Alisuag Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, Sameshima and Alisuag.<sup>77</sup> The Applicant has grouped claims 3 and 4 together because each of these claims includes an additional limitation relating to authenticating access to a remote data store or data source (with emphasis added):

3. The system of claim 1, further comprising an access authenticator for **authenticating access to said remote data store by said data source.**

4. The system of claim 3, wherein said access authenticator **authenticates access to said data source.**

For the sake of simplicity, the Applicant will only argue the substantive merits of claims 1 and 4. Claim 4 will be discussed on its own. In addition, claim 3 depends from claim 1. Therefore, if claim 1 is deemed patentable, then claim 3 must also be deemed patentable.<sup>78</sup> The Applicant respectfully submits that none of the references relied upon by the Examiner, whether considered alone or in combination, teach or suggest

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<sup>77</sup> Final Office Action of June 13, 2006 at page 6.

authenticating access to a remote data source, as recited in claim 4, or a status monitor that monitors operations occurring at a data source and triggers an archive request, as recited in claim 1. Therefore, the Applicant submits that claims 3 and 4 stand or fall together and are patentable under 35 U.S.C. § 103(a) in view of Rothschild, Kumagai, Sameshima and Alisuag.

**A. Claim 4: None Of The References Teaches Or Suggests An Access Authenticator That Authenticates Access To A Data Source**

The access authenticator of claim 4 is employed to permit or deny access to a data source.<sup>79</sup> If access is granted, the access authenticator permits medical data to be archived, restored, or copied, as described above in the Summary Of The Invention section of this Brief.<sup>80</sup>

Alisuag describes a computer oriented record administration system. The system in Alisuag provides for access to a portable memory device by two users.<sup>81</sup> Specifically, a portable memory element 22 can contain identification and medical information about a patient 24 being treated by a first user 40.1.<sup>82</sup> In order for the first user 40.1 and a second user to obtain access to the information in element 22, first user 40.1 obtains a passkey from a server computer system 12.<sup>83</sup> The passkey is then provided to the second user

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<sup>78</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

<sup>79</sup> See, e.g., '471 Specification at page 8, lines 18-31.

<sup>80</sup> '471 Specification at page 10, lines 1-18.

<sup>81</sup> Alisuag at ¶ 11.

<sup>82</sup> Alisuag at ¶ 12.

<sup>83</sup> Alisuag at ¶ 14.

40.2 from the first user 40.1 over a separate communication channel.<sup>84</sup> The second user 40.2 provides the passkey to the server computer system 12 and is provided with access to the data on element 22.<sup>85</sup>

Alisuag also describes an authenticator 402 that provides for authentication of access by a client to CORBAMED servers.<sup>86</sup> CORBAMED servers are defined by Alisuag as servers within the CORBAMED standard.<sup>87</sup> The CORBAMED standard is the Object Management Group, Inc. supported interface for the electronic exchange of medical data.<sup>88</sup> Alisuag describes five functions performed by CORBAMED servers.<sup>89</sup> The functions of CORBAMED server described in Alisuag consist of (1) a framework for correlating a patient's medical data from a number of different databases,<sup>90</sup> (2) a service that reconciles different data format requests issued by medical systems,<sup>91</sup> (3) a service that provides a common interface for healthcare systems exchanging clinical observations,<sup>92</sup> (4) a service that provides access to clinical images and related information where DICOM is not required,<sup>93</sup> and (5) a mechanism for obtaining

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<sup>84</sup> Alisuag at ¶ 14.

<sup>85</sup> Alisuag at ¶ 14.

<sup>86</sup> Alisuag at ¶ 45.

<sup>87</sup> Alisuag at ¶ 28.

<sup>88</sup> Alisuag at ¶ 28.

<sup>89</sup> Alisuag at ¶¶ 28-42.

<sup>90</sup> Alisuag at ¶ 31.

<sup>91</sup> Alisuag at ¶ 35.

<sup>92</sup> Alisuag at ¶ 37.

<sup>93</sup> Alisuag at ¶ 40.

authorization decisions and administering access decision policies.<sup>94</sup> None of the functions of CORBAMED servers described in Alisuag involve the providing of medical data.

The Applicant agrees with the Examiner that none of Rothschild, Kumagai and Sameshima teaches an access authenticator that authenticates access to a data source.<sup>95</sup> Alisuag also does not teach or suggest an access authenticator that authenticates access to a data source, as recited in claim 4.

The Examiner asserts that ¶ 45 of Alisuag describes authenticating access to a remote data store.<sup>96</sup> However, assuming for the sake of argument that ¶ 45 of Alisuag describes such authentication, access is only authenticated for a data store, and not a data source.

That is, Alisuag merely describes authenticating access to CORBAMED servers.<sup>97</sup> As described above, none of the CORBAMED servers provide medical data comprising at least one of a medical image, a medical patient report, and a medical application. Therefore, none of the CORBAMED servers constitute a medical data source (as recited in claim 1).

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<sup>94</sup> Alisuag at ¶ 42.

<sup>95</sup> Final Office Action of June 13, 2006 at page 6.

<sup>96</sup> Final Office Action of June 13, 2006 at page 6.

<sup>97</sup> Alisuag at ¶ 45.

The Examiner also argues that “[t]he authenticator [of Alisuag] is able to use to authenticate to the data source.”<sup>98</sup> However, the Examiner does not provide citation to any support for this contention. The Applicant respectfully submits that Alisuag does not describe using authentication to access any data source.

In sum, Alisuag does not teach or suggest authenticating access to a medical data source, as recited in claim 4.

With respect to Rothschild, the Examiner states “Rothschild discloses (login).”<sup>99</sup> However, the Examiner does not provide any analysis or reasoning as to why this establishes Rothschild purportedly describing authenticating access to a medical data source.

In fact, Rothschild very clearly teaches away from authenticating access to a medical data source or data store. Rothschild teaches away from authenticating access to a remote data store or to a data source by repeatedly criticizing the authentication required by other systems and methods to deliver medical images:

In general, most of the known systems and method for managing medical images in electronic record format use “pull” type image delivery protocol which requires the referring physician to log on to a web server and then download his or her patient’s images. However, busy physicians do not have the time or the desire to access their patient’s images in this manner. The “pull” model requires the physician to log in as well as extensive physician input and time to initiate the data transfer.<sup>100</sup>

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<sup>98</sup> Final Office Action of June 13, 2006 at page 6.

<sup>99</sup> Final Office Action of June 13, 2006 at page 6.

<sup>100</sup> Rothschild at col. 4, lines 42-50 (emphasis added).



All other known medical image management systems and methods are believed to **require the physician to log on to web sites** and then download the images to his computer. Hence, with other ASP systems not associated with the present invention, if the physician wishes to see his patients' images again, he must repeat the extensive and lengthy login and download procedures. **It is believed that such methods which rely upon the physician to actively login and download, will be unacceptable for the referring doctors who are extremely busy and are used to images being delivered to them on film.**<sup>101</sup>

Rothschild follows by stating that its disclosed system improves upon the systems that require authentication by delivering medical data to doctors and radiologists as soon as the data is available, without requiring any type of authentication before the images are delivered:

The central data management system (30) actively "pushes" the electronic records (5) and associated images (6) to the remote image viewing systems (40) of the radiologists and referring doctors as soon as the images are available. **This contrasts with the "pull" model where the images are stored on a server and a user has to login** and initiate a download in order to view the images.<sup>102</sup>

In other words, Rothschild describes a system and method where medical images are transferred from an image source (Rothschild's medical imaging system) to a central data management system, then to a remote image viewing system as quickly as possible, with no additional delays introduced by requiring that access to any of the image source, central data management system, and/or remote image viewing system be authenticated.

The only disclosure in Rothschild of any authentication occurs in one embodiment, namely an embodiment that includes a polling system within a remote

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<sup>101</sup> Rothschild at col. 24, line 60 to col. 25, line 3 (emphasis added).

viewing station.<sup>103</sup> In this embodiment, the polling system automatically polls the central data management system for medical data that is queued for delivery to the remote viewing station.<sup>104</sup> The polling system determines the IP address of the remote viewing station and notifies the central database (assumed to be part of the central data management system) of its current IP address.<sup>105</sup> An IP notifier of the polling system then notifies the central database of the IP address “after proper authentication.”<sup>106</sup> In other words, the only authentication disclosed in Rothschild is the authentication of a remote viewing station’s current IP address. However, this authentication is not authenticating access to a data source.

This embodiment of Rothschild does not teach or suggest limitations recited by claim 4. First, it is unclear how the “proper authentication” is performed. Rothschild is devoid of any teaching or suggestion of how the IP notifier is properly authenticated. The only disclosure of the IP polling system in Rothschild is located at column 15, line 43 through column 17, line 12 and at column 32, line 40 through column 33, line 55. However, nowhere in these sections is any disclosure, teaching or suggestion of an access authenticator for authenticating access to a remote data store by a data source, as recited in claim 4.

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<sup>102</sup> Rothschild at col. 22, lines 25-31.

<sup>103</sup> Rothschild at col. 15, lines 54-65.

<sup>104</sup> Rothschild at col. 15, lines 54-65.

<sup>105</sup> Rothschild at col. 15, lines 58-59.

<sup>106</sup> Rothschild at col. 15, lines 58-59.

Moreover, assuming for the sake of argument that Rothschild did sufficiently disclose an access authenticator or a step of authenticating access, such a disclosure only describes authenticating access to the central data management system by a remote viewing station in order to provide a current IP address. In other words, assuming *arguendo* that Rothschild does provide such a sufficient disclosure, Rothschild only describes an end-of-the-line, downstream viewing station (used by a physician or radiologist to review a patient's medical images)<sup>107</sup> that provides a central data management system with a current IP address of the viewing station once a polling system in the viewing station has received "proper authentication."<sup>108</sup>

However, this authentication in Rothschild is substantially different from the access authentication of claim 4. The authentication of Rothschild is to ensure that the central database receives IP addresses only from authenticated the remote viewing stations.<sup>109</sup> In contrast, the access authenticator of claim 4 determines whether medical data is archived, restored, or copied from a remote data store to a data source.<sup>110</sup> There is no other teaching or suggestion in Rothschild of authenticating access to a remote data store by a data source.

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<sup>107</sup> Rothschild at col. 24, lines 4-9.

<sup>108</sup> Rothschild at col. 54-64.

<sup>109</sup> Again, assuming *arguendo* that Rothschild's disclosure is sufficient to support any teaching or suggestion of authenticating any sort or type of access.

<sup>110</sup> See, e.g., '471 Specification at page 10, lines 1-18, page 12, lines 8-23, page 13, lines 27-31, and page 14, lines 1-13.

Therefore, Rothschild fails to teach or suggest elements of claim 4. The only disclosure in Rothschild relating to a type of access authentication is insufficient to teach or suggest the limitations of these claims. Moreover, assuming *arguendo* that the disclosure of Rothschild was sufficient to teach or suggest some type of authenticated access, the authenticated access does not teach or suggest the limitations recited in claim 4.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai, Sameshima and Alisuag, such a combination also fails to teach or suggest elements of claim 4. As described above, each of Rothschild, Kumagai, Sameshima and Alisuag fails to teach or suggest an access authenticator that authenticates access to a data source, as recited in claim 4. Therefore, a combination of these references also fails to teach or suggest all elements of claim 4.

**B. Claim 1: None Of The References Teaches Or Suggests The Recited Status Monitor**

As described above, none of Rothschild, Kumagai and Sameshima teaches or suggests the status monitor recited in claim 1. Alisuag also does not teach or suggest at least any such status monitor. Specifically, Alisuag does not teach or suggest any status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the data source transmits the data to a centralized remote data store when the request is triggered, as recited in claim 1.

Alisuag merely describes the obtaining of a passkey by a first user and the communication of the passkey to a second user so that both users can access data stored on a portable memory device.<sup>111</sup> Alisuag does not teach or suggest, among other things, any status monitor such as that recited in claim 1.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai, Sameshima and Alisuag, the combination also fails to teach or suggest elements of claim 1. For example, as described above, none of Rothschild, Kumagai, Sameshima and Alisuag, teaches or suggests at least any status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the data source transmits the data to a centralized remote data store when the request is triggered, as recited in claim 1. Therefore, a combination of Rothschild, Kumagai, Sameshima and Alisuag also fails to teach or suggest at least these elements of claim 1.

The Applicant respectfully submits that none of Rothschild, Kumagai, Sameshima and Alisuag, taken alone or in combination, teaches or suggests elements of at least claim 1. Claims 3 and 4 depend from claim 1. Therefore, if claim 1 is deemed patentable, then claims 3 and 4 must also be deemed patentable.<sup>112</sup>

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<sup>111</sup> Alisuag at ¶¶ 11, 12, 14.

<sup>112</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

Therefore, the Examiner's final rejection of pending claims 3 and 4 under 35 U.S.C. § 103(a) in view of Rothschild, Kumagai, Sameshima and Alisuag should not be allowed to stand.

**VI. The Rejection Of Claim 6 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Kumagai, Sameshima and Dethloff Is Improper**

The Examiner finally rejected pending claim 6 under 35 U.S.C. § 103(a) in view of Rothschild, Kumagai, Sameshima and Dethloff.<sup>113</sup> The Applicant has grouped claim 6 by itself because claim 6 depends from claim 1 and includes an additional limitation of restoring medical data from a remote data store to a data source:

6. The system of claim 5, wherein said remote data store further restores said medical data to said data source.

For the sake of simplicity, the Applicant will only argue the substantive merits of claim 1. Claim 6 depends from claim 1. Therefore, if claim 1 is deemed patentable, then claim 6 must also be deemed patentable.<sup>114</sup>

The Applicant respectfully submits that none of the references relied upon by the Examiner, whether considered alone or in combination, teach or suggest a status monitor that monitors operations occurring at a data source and triggers an archive request, as

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<sup>113</sup> Final Office Action of June 13, 2006 at page 7.

<sup>114</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

recited in claim 1. Therefore, the Applicant submits that claim 6 is patentable under 35 U.S.C. § 103(a) in view of Rothschild, Kumagai, Sameshima and Dethloff.

Dethloff describes a method and system for securing and restoring data of a portable chip-card if lost or stolen. Specifically, Dethloff describes a data medium 10 (such as a chip-card) and a terminal 20.<sup>115</sup> Data representing the total amount of available memory is written into a memory section 16 of data medium 10.<sup>116</sup> The terminal displays the data and changes the data according to corresponding operation of the terminal.<sup>117</sup>

However, Delthoff does not remedy the shortcomings of Rothschild, Kumagai and Sameshima, as described above. Delthoff does not teach or suggest any status monitor at all, much less a status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the medical data is transferred to a centralized remote data store when the archive request is triggered, as recited in claim 1. Rather, Delthoff is limited to describing only a data medium (such as a chip card) that merely stores data and a terminal that merely stores and displays data. Delthoff does not describe any status monitor.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Kugamai, Sameshima and Delthoff, the combination also fails to teach or

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<sup>115</sup> Dethloff at col. 3, lines 23-27.

<sup>116</sup> Dethloff at col. 3, lines 53-61.

suggest elements of at least claim 1. As described above, none of these references teaches or suggests the status monitor recited in claim 1.

The present rejection encompasses claim 6. The Applicant respectfully submits that none of Rothschild, Kumagai, Sameshima and Delthoff, taken alone or in combination, teaches or suggests elements of at least claim 1. Claim 6 depends from claim 1. Therefore, claim 6 should be allowable.

**VI. The Rejection Of Claims 11-14 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Kumagai, Sameshima and Parvulescu Is Improper**

The Examiner finally rejected pending claims 11-14 under 35 U.S.C. § 103(a) in view of Rothschild, Kumagai, Sameshima and Parvulescu.<sup>118</sup> The Applicant has grouped claims 11-14 together because each of these claims depends from claim 1. For the sake of simplicity, the Applicant will only argue the substantive merits of claim 1. Therefore, if claim 1 is deemed patentable, then claims 11-14 must also be deemed patentable.<sup>119</sup>

The Applicant respectfully submits that none of the references relied upon by the Examiner, whether considered alone or in combination, teach or suggest a status monitor that monitors operations occurring at a data source and triggers an archive request, as

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<sup>117</sup> Dethloff at col. 1, lines 38-42.

<sup>118</sup> Final Office Action of June 13, 2006 at page 7.

<sup>119</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).



recited in claim 1. Therefore, the Applicant submits that claims 11-14 are patentable under 35 U.S.C. § 103(a) in view of Rothschild, Kumagai, Sameshima and Parvulescu.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild, Kumagai and Sameshima, as described above. While Parvulescu generally describes a system for obtaining and archiving medical images, Parvulescu does not include any disclosure of a status monitor (1) monitoring operations occurring at a data source and (2) triggering an archive request after the medical data is obtained by the data source, as recited in claim 1. Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive.<sup>120</sup> There is no teaching or suggestion of any device or routine that either monitors operations occurring at a data source or triggers the archiving of medical data when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of at least claim 1.

In addition, assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai, Sameshima and Parvulescu, the combination also fails to teach or suggest elements of at least claim 1. As described above, each of these references fails to teach or suggest a status monitor (1) monitoring operations occurring at a data source and (2) triggering an archive request after the medical data is obtained by

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<sup>120</sup> Parvulescu at col. 4, lines 30-36.

the data source, as recited in claim 1. Therefore, a combination of these references also fails to teach or suggest at least this element.

The present rejection encompasses claims 11-14. The Applicant respectfully submits that none of Rothschild, Kumagai, Sameshima and Parvulescu, taken alone or in combination, teaches or suggest elements of at least claim 1. Claims 11-14 depend from claim 1. Therefore, claims 11-14 should be allowable.

**VI. The Rejection Of Claims 15-18 And 20 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild And Drexler Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claims 15-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Drexler.<sup>121</sup> For the sake of simplicity, Applicant has elected to only argue the substantive merits of the patentability of independent claim 15 in this group. If claim 15 is found to be patentable, then claims 16-18 and 20, which depend from claim 15, must also be found patentable.<sup>122</sup>

Independent claim 15 recites (with emphasis added):

15. A system for remotely accessing a centralized data store, said system comprising:

a centralized remote data store storing medical data indexed according to data source, wherein said medical data comprises at least one of a medical image, a medical

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<sup>121</sup> Final Office Action of June 13, 2006 at page 9.

report, and a medical application, wherein said centralized remote data store comprises an application service provider; and

a status monitor for controlling a transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor automatically detects an error in said medical data at said data source by detecting at least one of data loss, data corruption, and failure of said system via a front-end connection between said data source and said status monitor, said status monitor instructing said centralized remote data store to transmit data to said data source in order to restore said medical data, wherein said data source receives said medical data and stores said medical data.

The Applicant respectfully submits that none of the references relied upon by the Examiner, whether considered alone or in combination, teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Therefore, the Applicant submits that claims 15-18 and 20 are patentable under 35 U.S.C. § 103(a) in view of Rothschild and Drexler.

As described above, Rothschild merely describes a medical image management system where a medical imaging system obtains medical images and transmits these

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<sup>122</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

images to a central data management system.<sup>123</sup> Once the image data is stored at the central data management system, the images may be “pushed” to image viewing systems for users to view the images.<sup>124</sup>

Rothschild fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. There is no teaching or suggestion in Rothschild for the automatic detection and restoration of erroneous medical data from a centralized remote data store to a data source. While Rothschild may disclose the communication of medical images from a central data management system to one or more viewing stations, this communication is not taught or suggested by Rothschild to occur as a result of a detected error in the medical image. That is, Rothschild does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

Drexler does not remedy the shortcomings of Rothschild, as described above. Drexler describes a method for laser writing multiple updatable miniature 2-D barcode data bases for electronic commerce. The Applicant respectfully submits that Drexler is

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<sup>123</sup> Rothschild at col. 18, lines 39-56.

<sup>124</sup> Rothschild at col. 18, line 57 to col. 19, line 15.

unavailable as a prior art reference against the pending claims. Specifically, Drexler is nonanalogous art with respect to the subject matter of the pending claims.

In order to qualify as a prior art reference in a rejection under 35 U.S.C. § 103, the reference must either be (1) in the field of the applicant's endeavor or (2) reasonably pertinent to the problem with which the application is concerned:

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.<sup>125</sup>

A prior art reference is "reasonably pertinent to the particular problem with which the inventor was concerned" if it logically would have commended itself to the inventor's attention in considering his problem:

A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.<sup>126</sup>

Drexler satisfies neither of these requirements. First, Drexler is not in the field of the Applicant's endeavor in the pending application. Drexler is in the field of reading, storing and creating two-dimensional bar codes:

"Method For Laser Writing Multiple Updatable Miniature 2-D Barcode Data Bases For Electronic Commerce"<sup>127</sup>

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<sup>125</sup> MANUAL OF PATENT EXAMINING PROCEDURES § 2141.01(a), 8th ed., rev. 3 (Aug. 2005) (cited herein as "MPEP") (quoting *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992))

<sup>126</sup> MPEP § 2141.01(a) (quoting *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992)).

<sup>127</sup> Drexler at Title.

A method and system for recording and storing digital data on optical memory cards and labels in the form of miniature bar codes using laser recording of optical storage media to create multiple updatable, miniature 2-D bar codes, storing about 15 to more than 500 times as much digital data as the widely-adopted PDF-417, 2-D bar code.<sup>128</sup>

The present invention relates to a method of laser writing multiple updatable 2-D bar codes on optical memory cards and labels which are readable with a photo-detector array such as a CCD array.<sup>129</sup>

It is the object of the present invention to devise a method and apparatus for laser recording of a single or multiple two-dimensional bar code(s) readable with CCD or other photodetector arrays and with data storage capacities ranging from about 15 to more than 500 times greater than that of PDF-417 bar codes. Another object is to utilize data-pixel-based two-dimensional bar codes on cards or labels for authentication, validation, authorization, or identification involving Internet and Intranet E-Commerce transactions, documents, communications, and manufactured products. Another object of the invention is to devise a method and apparatus to make CCD-read data-pixel-based two-dimensional bar codes updatable. Another object is for an optical memory card to be utilized in reading and writing microscopic data spots that can be grouped into large data pixels to form single dimension bar codes known as 1-D bar codes. The 1-D bar code product types include Code 39, Code 93, Code 128, Code 11, Code B, Coda Bar, EAN, UPC, MSI, PostNet, Royal Mail (RM 45CC), and Telepen.<sup>130</sup>

On the other hand, the pending application is in the field of application service provider based redundant archive services for medical archives and/or imaging systems. Therefore, Drexler and the pending application clearly are not in the same “field of endeavor.”

Second, Drexler cannot qualify as analogous art because it is not “reasonably pertinent” to the problem with which the pending application is concerned. Specifically,

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<sup>128</sup> Drexler at Abstract.

<sup>129</sup> Drexler at col. 1, lines 13-16.

Drexler is concerned with providing an apparatus capable of laser recording single or multiple 2D bar codes.<sup>131</sup> On the other hand, the present application is concerned with improving the reliability of access to medical data for patient diagnosis and treatment.<sup>132</sup> The problems associated with laser printing of 2D bar codes and of accessing medical data are not reasonably pertinent to one another.

Therefore, Drexler does not meet either requirement for it to be considered analogous art. Consequently, Drexler is unavailable as a prior art reference in a rejection of claims under 35 U.S.C. § 103(a).<sup>133</sup>

Alternatively, assuming for the sake of argument that Drexler could somehow be considered to constitute analogous art, Drexler still fails to remedy the shortcomings of Rothschild. Like Rothschild, Drexler also fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

The only error detection mentioned in Drexler occurs at column 6, lines 4-17:

When an optical memory card is subject to severe environmental conditions or misuse such as scratching, high temperature, moisture, chemical or ultraviolet light exposure, particularly over extended periods of time, some of the microscopic data spots can be lost. Error detection

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<sup>130</sup> Drexler at col. 2, lines 35-54.

<sup>131</sup> Drexler at col. 2, lines 36-54.

<sup>132</sup> '471 Specification at page 3, lines 21-26 (¶ 14).

<sup>133</sup> See MPEP § 2141.01(a).

and correction (EDAC) systems are usually used to compensate for such situations. Also, additional microscopic spot data can be recorded redundantly on the card as a backup to the primary data in the event that critical data is lost. An even more secure approach to the problem is to record some of the critical data redundantly in the form of large data pixels on the same card. Thus if the primary critical data is lost, the large data pixels can be used for recovery.<sup>134</sup>

That is, Drexler only describes EDAC systems that are used to compensate for the loss of data spots on an optical memory card. However, this brief passage in Drexler does not teach or suggest several limitations recited in claim 15. First, Drexler does not teach or suggest the EDAC system automatically detecting an error, as recited in claim 15. Rather, Drexler just describes the EDAC system compensating for the loss of data spots.<sup>135</sup> No detection of errors is mentioned.

Second, Drexler does not teach or suggest detecting any error in medical data, also as recited in claim 15. Drexler only describes the loss of data spots on an optical memory card without reference to what data is included in the data spots.

Third, Drexler does not teach or suggest any device, apparatus or EDAC system instructing a centralized remote data store to transmit data to a data source in order to restore the medical data that includes the error, also as recited in claim 15. Notably, Drexler does not teach or suggest the briefly mentioned EDAC system instructing anything, much less a remote data store.

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<sup>134</sup> Drexler at col. 6, lines 4-17.

<sup>135</sup> Drexler at col. 6, lines 4-17.



Therefore, like Rothschild, Drexler also fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Assuming for the sake of argument that one would be motivated to combine Rothschild and Drexler, the combination also fails to teach or suggest all elements of claim 15. As described above, both Rothschild and Drexler fail to teach or suggest a status monitor automatically detecting medical data error and instructing a data store to transmit data to restore the erroneous medical data. Therefore, a combination of the references also fails to teach or suggest at least this element.

The present rejection encompasses claims 15-18 and 20. The Applicant respectfully submits that Drexler is unavailable as a prior art reference under 35 U.S.C. § 103(a) because Drexler is nonanalogous art to the present application. As the Examiner admits that Rothschild does not teach or suggest elements of claim 15,<sup>136</sup> the Applicant respectfully submits that claim 15 should be allowable. Claims 16-18 and 20 depend from claim 15. Accordingly, claims 15-18 and 20 should be allowable.

Assuming for the sake of argument that Drexler is considered analogous art to the pending application, the Applicant respectfully submits that neither Rothschild nor Drexler, taken alone or in combination, teaches or suggests all elements of claim 15.

Claims 16-18 and 20 depend from claim 15. Therefore, claims 15-18 and 20 should be allowable.

**IV. The Rejection Of Claim 19 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Drexler And Alisuag Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Drexler and Alisuag.<sup>137</sup> The Applicant has grouped claim 19 by itself because claim 19 depends from claim 15. For the sake of simplicity, the Applicant will only argue the substantive merits of claim 15. Therefore, if claim 15 is deemed patentable, then claim 19 must also be deemed patentable.<sup>138</sup>

As described above, the Applicant respectfully submits that Drexler is nonanalogous art to the pending application. However, even assuming for the sake of argument that Drexler is not considered nonanalogous art to the pending application, both Rothschild and Drexler, whether considered alone or in combination, fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to

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<sup>136</sup> See Office Action mailed June 13, 2006 at page 9.

<sup>137</sup> Final Office Action of June 13, 2006 at page 19.

<sup>138</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

the data source in order to restore the medical data that includes the error, as recited in claim 15. Alisuag does not remedy these shortcomings.

As described above, Alisuag describes a computer oriented record administration system. However, Alisuag does not teach or suggest any error detection, much less automatic error detection by a status monitor that also instructs a centralized remote data store to transmit data to restore the erroneous data. Therefore, each of Rothschild, Drexler and Alisuag fails to teach or suggest elements of claim 15.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Drexler and Alisuag, the combination also fails to teach or suggest elements of claim 15. Each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error. Therefore, a combination of these references also fails to teach or suggest these elements.

The present rejection encompasses claim 19. The Applicant respectfully submits that Drexler is unavailable as a prior art reference under 35 U.S.C. § 103(a) because Drexler is nonanalogous art to the present application. Assuming for the sake of argument that Drexler could be considered to be analogous art, the Applicant respectfully submits that none of Rothschild, Drexler and Alisuag, considered alone or in

combination, teaches or suggests elements of claim 15. Claim 19 depends from claim 15. Therefore, claim 19 should be allowable.

**IV. The Rejection Of Claim 23 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Drexler And Dethloff Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Drexler and Dethloff.<sup>139</sup> The Applicant has grouped claim 23 by itself because claim 23 depends from claim 15. For the sake of simplicity, the Applicant will only argue the substantive merits of claim 15. Therefore, if claim 15 is deemed patentable, then claim 23 must also be deemed patentable.<sup>140</sup>

As described above, the Applicant respectfully submits that Drexler is nonanalogous art to the pending application. However, even assuming for the sake of argument that Drexler is considered to constitute analogous art to the pending application, both Rothschild and Drexler (whether considered alone or in combination), fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as

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<sup>139</sup> Final Office Action of June 13, 2006 at page 11.

<sup>140</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

recited in claim 15 (as described above with respect to the rejection of claims 15-18 and 20 under 35 U.S.C. § 103(a)).

Dethloff describes a method and system for securing and restoring data of a portable chip-card if lost or stolen, as described above. However, Dethloff does not describe any status monitor at all, much less a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Dethloff does not describe any detection of data loss, data corruption or a failure of a storage system. Rather, Dethloff only describes generating an error signal if a comparison between data stored on the disclosed data medium 10 and terminal 20 differs.<sup>141</sup> Dethloff does not, however, describe any automatic error detection of data loss, corruption or a failure of a storage system.

In addition, Dethloff does not describe a status monitor that instructs a remote data store to transmit data to a data source in order to restore erroneous medical data, as recited in claim 15. As described above, Dethloff only describes generating an error signal if data on a terminal and data medium differ.<sup>142</sup> In the event that such an error signal is generated, Dethloff describes preventing any further actions being performed by the system.:

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<sup>141</sup> Dethloff at col. 1, line 62 to col. 2, line 7; col. 4, lines 12-31.

<sup>142</sup> Dethloff at col. 1, line 62 to col. 2, line 7; col. 4, lines 12-31.

This comparison is indicated in the flow chart with block 56. However, if the comparison of the data shows their nonidentity, according to block 72 an error signal is triggered on the display element and subsequently the check is terminated and no further functions in the system comprising data medium 10 and terminal 20 can be executed (Step 70).<sup>143</sup>

That is, Dethloff describes essentially locking up the system and preventing any further actions if the data in the disclosed terminal and medium do not match. Dethloff cannot, therefore, describe instructing a remote data store to transmit data to a data source in order to restore erroneous medical data after the error is automatically detected, as recited in claim 15

The present rejection encompasses claim 23. The Applicant respectfully submits that Drexler is unavailable as a prior art reference under 35 U.S.C. § 103(a) because Drexler is nonanalogous art to the present application. Assuming for the sake of argument that Drexler could be considered to be analogous art, the Applicant respectfully submits that none of Rothschild, Drexler and Dethloff, considered alone or in combination, teaches or suggests elements of claim 15. Claim 23 depends from claim 15. Therefore, claim 23 should be allowable.

#### **IV. The Rejection Of Claim 24 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Drexler And Parvulescu Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Drexler and

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<sup>143</sup> Dethloff at col. 4, lines 26-31.

Parvulescu.<sup>144</sup> The Applicant has grouped claim 24 by itself because claim 24 depends from claim 15. For the sake of simplicity, the Applicant will only argue the substantive merits of claim 15. Therefore, if claim 15 is deemed patentable, then claim 24 must also be deemed patentable.<sup>145</sup>

As described above, the Applicant respectfully submits that Drexler is nonanalogous art to the pending application. However, even assuming for the sake of argument that Drexler is considered to constitute analogous art to the pending application, both Rothschild and Drexler (whether considered alone or in combination), fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild and Drexler. Parvulescu describes a medical image processing system that provides for a user to capture a medical image and store the image data locally, on a portable media (such as a CD), or on a network server (communicated to the server via a network connection).<sup>146</sup> Parvulescu merely provides for the obtaining and storage of image data--there is no detection of errors in the image

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<sup>144</sup> Final Office Action of June 13, 2006 at page 12.

<sup>145</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

data nor is there any restoration of the erroneous image data once it is detected. Therefore, Parvulescu does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Drexler and Parvulescu, the combination also fails to teach or describe elements of claim 15. As described above, each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error. Therefore, these references all fail to teach or describe elements of claim 15.

The present rejection encompasses claim 24. The Applicant respectfully submits that none of Rothschild, Drexler and Parvulescu, considered alone or in combination and assuming for the sake of argument that Drexler is available as a prior art reference under 35 U.S.C. § 103(a), teaches or suggests elements of claim 15. Claim 24 depends from claim 15. Therefore, claim 24 should be allowable

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<sup>146</sup> Parvulescu at col. 3, lines 18-39.



**IV. The Rejection Of Claims 25-29, 31-34 And 53-54 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Sameshima And Parvulescu Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claims 25-29, 31-34 and 53-54 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Sameshima and Parvulescu.<sup>147</sup> Claim 53 depends from claim 1. Claim 54 depends from claim 15. Claims 26-29 and 31-34 depend from claim 25. For the sake of simplicity, the Applicant will only argue the substantive merits of claims 1, 15 and 25. Therefore, if claims 1, 15 and 25 are deemed patentable, then claims 26-29, 31-34 and 53-54 must also be deemed patentable.<sup>148</sup>

**A. Claim 53**

Claim 53 depends from claim 1. As described above with regard to the rejection of claim 1, neither Rothschild nor Sameshima teaches or suggests at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild with regards to claim 1, as described above. Specifically, while Parvulescu generally describes a system for obtaining and

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<sup>147</sup> Final Office Action of June 13, 2006 at pages 12-13.

<sup>148</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

archiving medical images, Parvulescu does not provide any disclosure of a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1.

Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive.<sup>149</sup> There is no teaching or suggestion of any device or routine that either controls data transfer or triggers the archiving of medical data when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of claim 1.

In addition, a combination of Rothschild, Sameshima and Parvulescu also does not teach or suggest elements of at least claim 1. As explained above, each of these references lacks a teaching or suggestion of a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. As claim 53 depends from claim 1, Rothschild, Sameshima and Parvulescu, whether considered alone or in combination, fail to teach or suggest elements of claim 53.

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<sup>149</sup> Parvulescu at col. 4, lines 30-36.

**B. Claim 54**

Claim 54 depends from claim 15. As described above with regard to the rejection of claim 24 (which also depends from claim 15), neither Rothschild nor Parvulescu, considered alone or in combination, teaches or suggests elements of claim 15. Each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error.

Sameshima does not remedy these shortcomings. Specifically, there is no teaching or suggestion of any automatic error detection in medical data and/or any instruction sent to a remote data store to restore erroneous medical data in Sameshima. Notably, there is no mention of any data error in Sameshima at all, whether for purposes of error detection or error data restoration. Therefore, Sameshima clearly does not teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

Therefore, these references all fail to teach or describe elements of claim 15. As claim 54 depends from claim 15, Rothschild, Sameshima and Parvulescu, whether considered alone or in combination, fail to teach or suggest elements of claim 54.

**C. Claim 25**

With regard to claim 25, none of Rothschild, Sameshima and Parvulescu, whether considered alone or in combination, teaches or suggests elements of claim 25. Claim 25 recites detecting the obtaining of medical data at a data source and transferring the medical data from the source to a centralized remote data store based on a trigger. The trigger of claim 25 is produced by a status monitor after the data is obtained. As described above, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

In addition, Sameshima does not include any teaching or suggestion of transferring medical data from its source to a remote data store. Sameshima only describes the communication of data between processing devices, and not to any remote data store.<sup>150</sup> Therefore, Sameshima also fails to teach or suggest elements of claim 25.

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<sup>150</sup> See Sameshima at col. 4, lines 37-40 (“The system has processing devices 111 to 113 which mutually communicate (transmit/receive) data to one another through a transmission medium 101, and terminals 121 to 123 each having a display, a keyboard, etc.”).

Assuming for the sake of argument that one would be motivated to combine Sameshima, Parvulescu and Rothschild, the combination also fails to teach or suggest elements of claim 25. As described above, each of these references fails to teach or describe detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Therefore, the Applicant respectfully submits that none of Sameshima, Parvulescu and Rothschild, considered alone or in combination, teaches or suggests elements of at least claim 25.

The present rejection encompasses claims 25-29, 31-34 and 53-54. The Applicant respectfully submits that none of Rothschild, Sameshima and Parvulescu, considered alone or in combination, teaches or suggests elements of claims 1, 15 and 25. Claims 26-29, 31-34 and 53-54 depend from claims 1, 15 and 25. Therefore, claims 25-29, 31-34 and 53-54 should be allowable.

**IV. The Rejection Of Claim 30 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Sameshima, Parvulescu And Alisuag Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claim 30 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Sameshima, Parvulescu

and Alisuag.<sup>151</sup> Claim 30 depends from claim 25. For the sake of simplicity, the Applicant will only argue the substantive merits of claim 25. Therefore, if claim 25 is deemed patentable, then claim 30 must also be deemed patentable.<sup>152</sup>

As described above, none of Sameshima, Parvulescu and Rothschild, alone or in combination, teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Alisuag does not remedy these shortcomings of Rothschild and Parvulescu. Alisuag does not teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Alisuag merely describes the obtaining of a passkey by a first user and the communication of the passkey to a second user so that both users can access data stored on a portable memory device.<sup>153</sup> Alisuag does not teach or suggest any detection of when data is obtained at any source, or transferring data based on a trigger produced by a status monitor. Therefore, Alisuag also does not teach or suggest elements of claim 25.

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<sup>151</sup> Final Office Action of June 13, 2006 at page 17.

<sup>152</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

<sup>153</sup> Alisuag at ¶¶ 11-12, 14.

Moreover, a combination of these references also fails to teach or suggest elements of claim 25. As described above, each of these references fails to teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained. Therefore, each of these references fails to teach or suggest elements of claim 25.

The present rejection encompasses claim 30. The Applicant respectfully submits that none of Rothschild, Sameshima, Parvulescu and Alisuag, considered alone or in combination, teaches or suggests elements of claim 25. Claim 30 depends from claim 25. Therefore, claim 30 should be allowable.

**IV. The Rejection Of Claims 35-36 Under 35 U.S.C. § 103(a) As Being Unpatentable Over Rothschild, Sameshima, Parvulescu And Dethloff Is Improper**

In the Final Office Action mailed June 13, 2006, the Examiner rejected claims 35-36 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Sameshima, Parvulescu and Dethloff.<sup>154</sup> Claims 35 and 36 depend from claim 25. For the sake of simplicity, the Applicant will only argue the substantive merits of claim 25. Therefore, if claim 25 is deemed patentable, then claims 35 and 36 must also be deemed patentable.<sup>155</sup>

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<sup>154</sup> Final Office Action of June 13, 2006 at page 17.

<sup>155</sup> MPEP § 2143.03 at 133 (citing *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988)).

As described above, none of Parvulescu, Rothschild and Sameshima, alone or in combination, teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Dethloff does not remedy these shortcomings.

Dethloff does not teach or suggest the detection of when any data is obtained by a source and transferring data from a source to a remote store based on a trigger produced after data is obtained. Rather, Dethloff is limited to describing a data medium (such as a chip card) that stores data and a terminal that stores and displays data.<sup>156</sup> Data can be transferred from the data medium to the terminal and vice-versa, but Dethloff does not disclose any detection of when data is obtained by a source. Therefore, Dethloff also fails to teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Assuming for the sake of argument that one would be motivated to combine these references, the combination also fails to teach or suggest elements of claim 25. As described above, none of these references teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced



by a status monitor after the data is obtained. Therefore, a combination of these references also fails to teach or suggest elements of claim 25.

The present rejection encompasses claims 35 and 36. The Applicant respectfully submits that none of Rothschild, Sameshima, Parvulescu and Dethloff, considered alone or in combination, teaches or suggests elements of claim 25. Claims 35 and 36 depend from claim 25. Therefore, claims 35 and 36 should be allowable.

### **CONCLUSION**

For the foregoing reasons, claims 1-8, 11-20, 23-36 and 53-54 are distinguishable over the prior art. The Applicant has worked with the Examiner through requests for continued examination, telephonic interviews, amendments and a previous appeal brief to claims to reach agreement with the Examiner despite a lack of relevant prior art. The Examiner has been afforded the opportunity through multiple RCEs to search the prior art and find references which anticipate or render obvious the pending claims. Thus, the Applicant respectfully requests a reversal of the Examiner's rejection and issuance of a patent on the present application.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GEMS-IT, Account No. 50-2401.

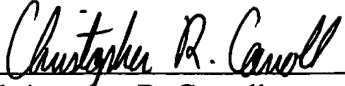
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<sup>156</sup> Dethloff at col. 1, lines 38-42 and col. 3, lines 23-27, 53-61.

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Application No. 09/681,471

Respectfully submitted,

Date: December 19, 2006

  
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**CLAIMS APPENDIX**

Below is a copy of the claims involved in the present appeal:

1. A central medical data archiving system, said system comprising:
  - a medical data source providing medical data, wherein said medical data comprises at least one of a medical image, a medical patient report, and a medical application;
  - a status monitor for controlling a transfer of said medical data from said data source to a centralized remote data store, wherein said status monitor monitors operations occurring at said data source and triggers an archive request after said medical data is obtained by said data source, said data source transmitting said medical data to said centralized remote data store when said archive request is triggered; and
  - a centralized remote medical data store receiving said medical data and storing said medical data, wherein said centralized remote medical data store comprises an application service provider.
2. The system of claim 1, wherein said status monitor verifies said transfer of said medical data from said data source to said remote data store.
3. The system of claim 1, further comprising an access authenticator for authenticating access to said remote data store by said data source.

4. The system of claim 3, wherein said access authenticator authenticates access to said data source.

5. The system of claim 1, wherein said data source further stores medical data.

6. The system of claim 5, wherein said remote data store further restores said medical data to said data source.

7. The system of claim 1, wherein said remote data store stores a copy of said medical data.

8. The system of claim 1, further comprising a second data source for storing medical data, wherein said remote data store transfers said medical data to said second data source.

11. The system of claim 1, wherein said status monitor controls the transfer of data from said data source to said remote data store at a definable interval.

12. The system of claim 11, wherein said definable interval comprises a timed interval.

13. The system of claim 11, wherein said definable interval comprises an event-based interval.

14. The system of claim 11, wherein said definable interval comprises a manual interval.

15. A system for remotely accessing a centralized data store, said system comprising:

a centralized remote data store storing medical data indexed according to data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application, wherein said centralized remote data store comprises an application service provider; and

a status monitor for controlling a transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor automatically detects an error in said medical data at said data source by detecting at least one of data loss, data corruption, and failure of said system via a front-end connection between said data source and said status monitor, said status monitor instructing said centralized remote data store to transmit data to said data source in order to restore said medical data,

wherein said data source receives said medical data and stores said medical data.

16. The system of claim 15, further comprising a second data source storing medical data.

17. The system of claim 16, wherein said status monitor controls the transfer of said copy of said medical data between said remote data store and said second data source.

18. The system of claim 16, wherein said status monitor verifies the transfer of said copy of said medical data between said remote data store and said second data source.

19. The system of claim 15, further comprising an access authenticator for authenticating access to said remote data store.

20. The system of claim 15, wherein said status monitor verifies said transfer of said medical data between said data source and said remote data store.

23. The system of claim 15, wherein said remote data store restores said medical data at said data source.

24. The system of claim 15, wherein said remote data store comprises at least one directory corresponding to said data source.

25. A method for remotely archiving medical data, said method comprising:  
detecting an operation involving medical data executed at a medical data source, said operation including obtaining said medical data at said medical data source;  
transferring said medical data from said medical data source to a centralized remote data store based on a trigger, wherein said trigger is produced by a status monitor after said operation occurs, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application;  
storing said medical data at said centralized remote data store; and  
indexing said medical data according to said data source.

26. The method of claim 25, further comprising the step of obtaining said medical data.

27. The method of claim 25, further comprising the step of storing said medical data at said data source.

28. The method of claim 25, wherein said storing step further comprises storing said medical data at said remote data store in a directory corresponding to said data source.

29. The method of claim 25, wherein said transferring step further comprises verifying said transfer of medical data from said remote data store to said data source.

30. The method of claim 25, further comprising the step of authenticating access to said remote data store.

31. The method of claim 25, wherein said transferring step occurs after a definable interval.

32. The method of claim 31, wherein said definable interval comprises a timed interval.

33. The method of claim 31, wherein said definable interval comprises an event-based interval.

34. The method of claim 31, wherein said definable interval comprises a manual interval.



35. The method of claim 25, further comprising the step of restoring said medical data to said data source from said remote data store.

36. The method of claim 25, further comprising the step of copying said medical data from said remote data store to a second data source.

53. The system of claim 1, further comprising a dedicated network connection for transferring said medical data between said medical data source and said centralized remote medical data store.

54. The system of claim 15, further comprising a private network connection for transferring said medical data between said data source and said centralized remote data store.

**EVIDENCE APPENDIX**

This Appendix contains copies of evidence entered by the Examiner and relied upon by the Appellant in the present appeal. The following is a list of such evidence along with a statement setting forth where in the record the evidence was entered in the record by the Examiner.

- (1) Office Action dated and entered into the record by the Examiner on Dec. 14, 2005;
- (2) Final Office Action dated and entered into the record by the Examiner on June 13, 2006;
- (3) Advisory Action dated and entered into the record by the Examiner on Aug. 24, 2006;
- (4) Advisory Action dated and entered into the record by the Examiner on Sept. 19, 2006; and
- (5) Final Office Action dated and entered into the record by the Examiner on Sept. 22, 2004.

This Appendix also contains copies of the evidence relied on by the Examiner as to grounds of rejection to be reviewed on appeal. The following is a list of such evidence.

- (A) U.S. Patent No. 6,678,703 to Rothschild et al.
- (B) U.S. Patent No. 6,081,809 to Kumagai et al.
- (C) U.S. Patent No. 6,038,564 to Sameshima et al.
- (D) U.S. Patent Application Pub. No. 2002/0083192 to Alisuag
- (E) U.S. Patent No. 5,902,981 to Dethloff

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(F) U.S. Patent No. 6,678,764 to Parvulescu et al.

(G) U.S. Patent No. 6,338,433 to Drexler

**RELATED PROCEEDINGS APPENDIX**

This Appendix is provided to include copies of decisions rendered by a court or the Board in any proceeding identified pursuant to 37 C.F.R. § 41.37(c)(1)(ii). However, as there are no such decisions, this Appendix is empty and does not include any said copies.



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,471	04/13/2001	Milton Silva-Craig	15-IS-5715	7327

23446 7590 12/14/2005  
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CHICAGO, IL 60661

EXAMINER

TO, BAOQUOC N

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,471

Applicant(s)

SILVA-CRAIG ET AL.

Examiner

Baoquoc N. To

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

1. After carefully reviewing applicant remarks, the Office withdraws the Finality of the Office Action dated on 09/22/2004. The office regrets any inconveniences due to the applicants.

Claims 1-8, 11-20, 23-36 and 53-54 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1,3-4, 6, 8, 15, 19, 23, 35, 36 and 53 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809).

Regarding on claims 1, Rothschild teaches a central medical data archiving system, said system comprising:

A medical data source providing medical data, where said medical data comprises at least one of a medical image, a medical patient report, and a medical application (a medical imaging system 10) (col. 18, lines 29-31); and

A centralized remote medical data store receiving said medical data and storing said medical data, wherein said centralized remote medical data store comprises an application service provider (ASP delivery the medical image from the medical image system 10 to the central servers (30' and 30") (col. 28, lines 32-67).

Rothschild does not explicitly teaches status monitor for controlling the transfer of said medical data from said data source to a centralized remote data store, where said status monitor monitors operations occurring at least one of said data source and centralized remote data store and triggers transfer of said medical data to said centralized remote data store based on said operations. However, Rothschild teaches "the medical image centers track the entire process of image workstation (20) merely by reference to the local image workstation (20) located in their respective clinic or hospital" (col. 29, lines 12-16) and "local image workstation (20) archives the data locally, and then "pushes" (as explained in detail below) the electronic record to central data management system (30) at a remote location, as described in detail below" (col. 18, lines 53-56). On the other hand, Kumagai discloses most medical data is collected at irregular intervals from different human or machines sources, and is stored as a record in databases in the server computer. Some data regularly comes from various kinds of monitoring machines and directly enters to the process unit and memory of the file server 11...) (col. 14, lines 63-67 and col. 15, lines 1-2). Therefore, it would have



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been obvious to one ordinary skill in the art at the time of the invention was made at the time of the invention was made to modify Rothchild's system to include collecting the medical data at the irregular interval from human or machines source as taught by Kumagai in order to store the medical data at the central system for easy access.

Regarding on claim 2, Rothschild teaches status monitor verifies said transfer of said medical data from said data source to said remote data store (col. 29, lines 16-29).

Regarding on claim 5, Rothschild teaches said data source further stores medical data (the local workstation stored medical image data) (col. 28, lines 41-48).

Regarding on claim 7, Rothschild teaches the remote data store stores a copy of said medical data (the central storage system (130) stores all electronic record (5) at two central back-up sites one at 30' and 30") (col. 28, lines 41-51).

Regarding on claim 8, Rothschild teaches a second data source for storing medical data, wherein said remote data store transfers said medical data to said second data source (the central data management system (30) actively "push" the electronic record (5) and associated images (6) to the remote image viewing system (40) of the radiologists and referring doctors as soon as the images are available) (col. 22, lines 24-28).

4. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and further in view of Alisuage (Pub. No. 2002/0083192 A1).

Regarding on claim 3, Rothschild and Kumagai do not explicitly teach an access authenticator for authenticating access to said remote data store by said data source. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Kumagai system to include authenticating access medical data server as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

Regarding on claim 4, Rothschild and Kumagai do not explicitly teach access authenticator authenticates access to said data source. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). The authenticator is able to use to authenticate to the data source. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Kumagai system to include authenticating access medical data server or data source as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and further in view of Dethloff (US. Patent No. 5,902,981).

Regarding on claim 6, Rothschild and Kumagai do not explicitly teach wherein said remote data store further restores said medical data to said data store. However, Dethloff discloses wherein said remote data store further restores said medical data to said data store (col. 1, lines 44-51). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Kumagai system to include the restoring the medical data in the event of lost as taught in Dethloff in order to restore the original files back to the system.

6. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and further in view of Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claims 11-14, Rothschild and Kumagai do not explicitly teach wherein said status monitor controls the transfer of data from said data store to said remote data store at a definable interval wherein said definable interval comprises a timed interval, event-based interval, or a manual interval. However, Rothchild teaches the automatically pushes the medical image to the central data management system (30) at a remote location (col. 18, lines 53-56) and once the electronic record (5) is received at central data management system (30), it is stored a the remote location and automatically routed., via "push" delivery to one or more remote image viewing system (col. 8, lines 63-67). This is the event based transferring. On the other hand,

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Parvulescu discloses "the picture are stored on the image archiving device 100' local hard disc drive 18 in a "session" format, one patient name being attached to a session. The session by be kept on local storage for any suitable period of time (e.g., 4 or 72 hours selectable) or until a user chooses to manually erase them. At convenient times (e.g., nightly or art periodic interval (e.g., every 72 hours erased and the disc storage freed for subsequently operations (e.g., the following morning). Preferably, the pictures will have been backed up onto a system server or other persistence storage to freeing the local storage" (col. 4, lines 61-67 to col. 5, lines 1-4). By erasing the medical data in the local drive manually and timed interval the system would have to back up these data based on these. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Kumagai system to include backing up data at timed interval and manually as taught by Parvulescu in order to allow the medical data to be backup for future restoration processes.

7. Claims 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Dethloff (US. Patent No. 5,902,981).

Regarding on claim 15, Rothschild teaches a system for remotely accessing a centralized data store, said system comprising:

A centralized remote data store storing medical data indexed according to data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application, wherein said centralized remote data store comprises

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an application service provider (the central data management system stores the information from the automated forms of entry to the record via the respective local image workstation (20)) (col. 22, lines 25-67);

Rothschild does not explicitly teach status monitor for controlling the transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor monitors actions occurring at data source and controls said centralized remote data store and said data source to transfer said medical data from said centralized remote data store to said data source based on trigger, wherein said trigger is based on an action occurring at said data source; and a data source receiving said medical data and storing said medical data. However, Dethloff teaches status monitor for controlling the transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor monitors actions occurring at data source and controls said centralized remote data store and said data source to transfer said medical data from said centralized remote data store to said data source based on trigger, wherein said trigger is based on an action occurring at said data source; and a data source receiving said medical data and storing said medical data (col. 1, lines 43-51). As soon as the data lost in the medium restoration is triggered and restore the data by the remote terminal. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include event triggering for restoration process soon as the data stored on the medium is lost as taught by Dethloff in order to restore any lost data from the processing system.

Regarding on claim 16, Rothschild teaches a second data source storing medical data (a remote user) (col. 22, lines 35-40).

Regarding on claim 17, Rothschild teaches the status monitor controls the transfer of said copy of said medical data between said remote data store and said second data source (location identified) (col. 22, lines 35-40).

Regarding on claim 18, Rothschild teaches the status monitor verifies the transfer of said copy of said medical data between said remote data store and said second data source (it also assures prompt delivery of a report from the remote user and back through the ASP system to other location identified) (col. 22, lines 38-40).

Regarding on claim 20, Rothschild teaches the status monitor verifies said transfer of said medical data between data source and said remote data store (it also assures prompt delivery of a report from the remote user and back through the ASP system to other location identified) (col. 22, lines 38-40).

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Dethloff (US. Patent No. 5,902,981) and further in view of Alisuage (Pub. No. 2002/0083192 A1).

Regarding on claim 19, Rothchild and Dethloff do not explicitly teach an access authenticator for authenticating access to said remote data store. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify

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Rothchild and Dethloff system to include authenticating access medical data server as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Dethloff (US. Patent No. 5,902,981) and further in view of Dethloff (US. Patent No. 5,902,981)

Regarding on claim 23, Rothschild and Dethloff do not explicitly teach the remote data store restores said medical data at said data source. However, Dethloff discloses wherein said remote data store further restores said medical data to said data store (col. 1, lines 44-51). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Dethloff system to include the restoring the medical data in the event of lost as taught in Dethloff in order to restore the original files back to the system.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Dethloff (US. Patent No. 5,902,981) and further in view Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claim 24, Rothschild does not explicitly teach the remote data store comprises at least one directory corresponding to said data source. However, Parvulescu teaches "so, if Doctor Gooden is performing the procedures on patient John

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Doe, then the captured images are stored in a folder called "Gooden", with each file in the folder incorporating a standard syntax including patient's name, image number, hospital/practice name, time & date, and procedure information as described above" (col. 9, lines 23-28). This teaches the captured images of the treated patient are organized in the memory as the folder or directory. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the Rothschild's system to include the captured images data to store in the folder or directory in order to easily retrieve the file the in the organized database.

11. Claims 25-29, 31-34 and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claim 25, Rothschild teaches a method for remotely archive data said method comprising:

Detecting an operation involving medical data executed at a medical data source (soon as the record input to a local image work station and archiving locally, the database management automatically pushes the electronic records and associated images to the remote image viewing system) (col. 22, lines 24-67);

transferring said medical data from said medical data source to a centralized remote data store based on a trigger, wherein said trigger is produced based on said operation executed at said data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application (the medical image



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of the patient is automatically pushed to the remote image viewing as soon as record inputted) (col. 22, lines 24-67); and

storing the medical data at said centralized remote data store (once the electronic record (5) is received at central data management system (30), it is stored at the remote location and automatically routed., via "push" delivery...) (col. 18, lines 63-67).

Rothchild does not explicitly teach indexing said medical data according to said data source. However, Parvulescu teaches, "in accordance with a preferred embodiment, the stored images are indexes via a predictable syntax..." (col. 4, lines 51-60) and "preferably, the pictures will have been backed up onto a system server or other persistent storage prior to freeing to the local storage" (col. 5, lines 2-4). The medical images are indexed in backup data storage as they are indexed local terminal. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include indexing the medical images same as to the backup system server as taught in Parvelescu in order to easily restoration of the medical images when needed.

Regarding on claim 26, Rothschild teaches the step of obtaining said medical data (col. 22, lines 66-67).

Regarding on claim 27, Rothschild teaches the step of storing said medical data at said data source (stored at the workstation) (col. 18, lines 46-48).

Regarding on claim 28, Rothschild does not explicitly teach storing step further comprises storing said medical data at said remote in a directory corresponding to said

data source. However, Parvulescu teaches "so, if Doctor Gooden is performing the procedures on patient John Doe, then the captured images are stored in a folder called "Gooden", with each file in the folder incorporating a standard syntax including patient's name, image number, hospital/practice name, time & date, and procedure information as described above" (col. 9, lines 23-28). This teaches the captured images of the treated patient are organized in the memory as the folder or directory. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the Rothschild's system to include the captured images data to store in the folder or directory in order to easily retrieve the file the in the organized database.

Regarding on claim 29, Rothchild teaches transferring step further comprises verifying said transfer of medical data from said remote data store to said data source (col. 32, lines 35-39).

Regarding on claims 31-34, Rothschild does not explicitly teaches said transferring step occurs after a definable interval comprises a timed interval, event-based interval, and a manual interval. However, Rothchild teaches the automatically pushes the medical image to the central data management system (30) at a remote location (col. 18, lines 53-56) and once the electronic record (5) is received at central data management system (30), it is stored a the remote location and automatically routed., via "push" delivery to one or more remote image viewing system (col. 8, lines 63-67). This is the event based transferring. On the other hand, Parvulescu discloses "the picture are stored on the image archiving device 100' local hard disc drive 18 in a "session" format, one patient name being attached to a session. The session by be

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kept on local storage for any suitable period of time (e.g., 4 or 72 hours selectable) or until a user chooses to manually erase them. At convenient times (e.g., nightly or at periodic interval (e.g., every 72 hours erased and the disc storage freed for subsequently operations (e.g., the following morning). Preferably, the pictures will have been backed up onto a system server or other persistence storage to freeing the local storage" (col. 4, lines 61-67 to col. 5, lines 1-4). By erasing the medical data in the local drive manually and timed interval the system would have to back up these data based on these. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild's system to include backing up data at timed interval and manually as taught by Parvulescu in order to allow the medical data to be backup for future restoration processes.

Regarding on claim 53, Rothschild teaches a dedicated network connection for transferring said medical data between said medical data source and said centralized remote medical data store (col. 19, lines 36-39).

Regarding on claim 54, Rothschild teaches a private network connection for transferring said medical data between said data source and said centralized remote data store (non publish accessed) (col. 19, lines 36-39).

12. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Parvulescu et al. (US. Patent No. 6,678,764 B2) and further in view of Alisuag (Pub. No. 2002/0083192 A1)

Regarding on claim 30, Rothschild does not explicitly teach authenticating access to said remote data store. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild's system to include authenticating access medical data server as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

13. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Parvulescu et al. (US. Patent No. 6,678,764 B2) and further in view of Dethloff (US. Patent No. 5,902,981).

Regarding on claim 35, Rothschild and Parvulescu do not explicitly teach the step of restoring said medical data to said data source from said remote data source. However, Dethloff discloses the step of restoring said medical data to said data source from said remote data source (col. 1, lines 44-51). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Parvulescu system to include the restoring the medical data in the event of lost as taught in Dethloff in order to restore the original files back to the system.

Regarding on claim 36, Rothchild and Parvulescu do not explicitly teach the step of copying said medical data from said remote data source to a second data source. However, Dethloff teaches the step of copying said medical data from said remote data

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source to a second data source (col. 1, lines 44-51). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Parvulescu system to include the restoring by copy the medical data into the medium as taught in Dethloff in order to restore the original files back to the system.

***Contact Information***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) –273-8300 [Official Communication]

BQ To

December 11<sup>th</sup>, 2005

  
Baoquoc N. To  
PRIMARY EXAMINER

**Notice of References Cited**

Application/Control No.

09/681,471

Applicant(s)/Patent Under  
Reexamination  
SILVA-CRAIG ET AL.

Examiner

Baoquoc N. To

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2162

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,081,809	06-2000	Kumagai, Yasuo	707/104.1
*	B	US-5,902,981	05-1999	Dethloff, Juergen	235/375
*	C	US-2002/0083192	06-2002	Alisuag, Cora	709/237
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	P					
	Q					
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	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**Search Notes**

Application/Control No.

09/681,471

Examiner

Baoquoc N. To

Applicant(s)/Patent under  
Reexamination

SILVA-CRAIG ET AL.

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2162

**SEARCHED**

Class	Subclass	Date	Examiner
707	202,204	12/11/2005	BTO
707	202,204	12/12/2005	BTO

**INTERFERENCE SEARCHED**

Class	Subclass	Date	Examiner

**SEARCH NOTES  
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Consulted with Hosian Alams, SPE 707	12/7/2005	BTO
Updated search	12/7/2005	BTO

# Index of Claims



Application/Control No.

09/681,471

Examiner

Baoquoc N. To

Applicant(s)/Patent under  
Reexamination

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2162

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
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N	Non-Elected
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A	Appeal
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Claim		Date											
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,471	04/13/2001	Milton Silva-Craig	15-IS-5715	7327

23446 7590 06/13/2006  
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SUITE 3400  
CHICAGO, IL 60661

EXAMINER

TO, BAOQUOC N

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,471

Applicant(s)

SILVA-CRAIG ET AL.

Examiner

Baoquoc N. To

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11-20, 23-36, 53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-20, 23-36, 53 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1, 15, 25 and 36 are amended in the amendment filed on 03/10/2006. Claims 1-8, 11-20, 23-36 and 53-54 are pending in this application.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-8, 11-20, 23-36 and 53-54 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "the transfer" in line 5 and claim 15 recites the limitation "the transfer" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-8, 11-14, 16-20 and 23-24 are depended on claims 1 and 15; therefore, they are rejected under the same reason.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and further in view of Sameshima et al. (US. Patent No. 6,038,564).

Regarding on claims 1, Rothschild teaches a central medical data archiving system, said system comprising:

A medical data source providing medical data, where said medical data comprises at least one of a medical image, a medical patient report, and a medical application (a medical imaging system 10) (col. 18, lines 29-31); and

A centralized remote medical data store receiving said medical data and storing said medical data, wherein said centralized remote medical data store comprises an application service provider (ASP delivery the medical image from the medical image system 10 to the central servers (30' and 30'') (col. 28, lines 32-67).

Rothschild does not explicitly teaches status monitor for controlling the transfer of said medical data from said data source to a centralized remote data store, where said status monitor monitors operations occurring at said data source and triggers an archive request after said medical data is obtain by said data source, said data source transmitting said medical data to said centralized remote data store when said archive request is triggered. However, Rothschild

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teaches "the medical image centers track the entire process of image workstation (20) merely by reference to the local image workstation (20) located in their respective clinic or hospital" (col. 29, lines 12-16) and "local image workstation (20) archives the data locally, and then "pushes" (as explained in detail below) the electronic record to central data management system (30) at a remote location, as described in detail below" (col. 18, lines 53-56). On the other hand, Kumagai discloses most medical data is collected at irregular intervals from different human or machines sources, and is stored as a record in databases in the server computer. Some data regularly comes from various kinds of monitoring machines and directly enters to the process unit and memory of the file server 11...) (col. 14, lines 63-67 and col. 15, lines 1-2). The modification is required because the monitor will control of the transferring process. Furthermore, Sameshima discloses "a data integration management table 233 defines reference sources of respective data to be integrated and the names of the data, and also defines an output option, etc. when the integrate data are delivered to the application program for detecting events such as an event based on a periodic timer in the self processing device...A status control table 234 sets conditions to start/end the collection of the data set in the event linking data table 232 and the integration of the data set in the data integration management table 233..." (col. 5, lines 18-51). This suggests the status monitor monitors the collection of data and triggers a transmission of collected data to the processing device. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made at the time of the invention was made to

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modify Rothchild and Kumaigai system to include triggering the transfer of the collected data from the monitoring unit as taught by Sameshima in order to store the medical data at the central system for easy access.

Regarding on claim 2, Rothschild teaches status monitor verifies said transfer of said medical data from said data source to said remote data store (col. 29, lines 16-29).

Regarding on claim 5, Rothschild teaches said data source further stores medical data (the local workstation stored medical image data) (col. 28, lines 41-48).

Regarding on claim 7, Rothschild teaches the remote data store stores a copy of said medical data (the central storage system (130) stores all electronic record (5) at two central back-up sites one at 30' and 30") (col. 28, lines 41-51).

Regarding on claim 8, Rothschild teaches a second data source for storing medical data, wherein said remote data store transfers said medical data to said second data source (the central data management system (30) actively "push" the electronic record (5) and associated images (6) to the remote image viewing system (40) of the radiologists and referring doctors as soon as the images are available) (col. 22, lines 24-28).

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and Sameshima et al. (US. Patent No. 6,038,564) and further in view of Alisuage (Pub. No. 2002/0083192 A1).

Regarding on claim 3, Rothschild and Kumagai and Sameshima do not explicitly teach an access authenticator for authenticating access to said remote data store by said data source. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Kumagai and Sameshima system to include authenticating access medical data server as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

Regarding on claim 4, Rothschild and Kumagai and Sameshima do not explicitly teach access authenticator authenticates access to said data source. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). The authenticator is able to use to authenticate to the data source. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Kumagai system to include authenticating access medical data server or data source as taught by Alisuag in

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order to grant access to restricted medical file only to authorized person or application.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and Sameshima et al. (US. Patent No. 6,038,564) and further in view of Dethloff (US. Patent No. 5,902,981).

Regarding on claim 6, Rothschild and Kumagai and Sameshima do not explicitly teach wherein said remote data store further restores said medical data to said data store. However, Dethloff discloses wherein said remote data store further restores said medical data to said data store (col. 1, lines 44-51). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Kumagai system to include the restoring the medical data in the event of lost as taught in Dethloff in order to restore the original files back to the system.

7. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Kumagai et al. (US. Patent No. 6,081,809) and Sameshima et al. (US. Patent No. 6,038,564) further in view of Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claims 11-14, Rothschild and Kumagai and Sameshima do not explicitly teach wherein said status monitor controls the transfer of data from



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said data store to said remote data store at a definable interval wherein said definable interval comprises a timed interval, event-based interval, or a manual interval. However, Rothchild teaches the automatically pushes the medical image to the central data management system (30) at a remote location (col. 18, lines 53-56) and once the electronic record (5) is received at central data management system (30), it is stored at the remote location and automatically routed., via "push" delivery to one or more remote image viewing system (col. 8, lines 63-67). This is the event based transferring. On the other hand, Parvulescu discloses "the picture are stored on the image archiving device 100' local hard disc drive 18 in a "session" format, one patient name being attached to a session. The session by be kept on local storage for any suitable period of time (e.g., 4 or 72 hours selectable) or until a user chooses to manually erase them. At convenient times (e.g., nightly or at periodic interval (e.g., every 72 hours erased and the disc storage freed for subsequently operations (e.g., the following morning). Preferably, the pictures will have been backed up onto a system server or other persistence storage to freeing the local storage" (col. 4, lines 61-67 to col. 5, lines 1-4). By erasing the medical data in the local drive manually and timed interval the system would have to back up these data based on these. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Kumagai and Sameshima system to include backing up data at timed interval and manually as taught by Parvulescu in order to allow the medical data to be backup for future restoration processes.

8. Claims 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Drexler (US. Patent No. 6,338,433 B1).

Regarding on claim 15, Rothschild teaches a system for remotely accessing a centralized data store, said system comprising:

A centralized remote data store storing medical data indexed according to data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application, wherein said centralized remote data store comprises an application service provider (the central data management system stores the information from the automated forms of entry to the record via the respective local image workstation (20)) (col. 22, lines 25-67);

Rothschild does not explicitly teach status monitor for controlling the transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor monitors actions occurring at data source and controls said centralized remote data store and said data source to transfer said medical data from said centralized remote data store to said data source based on trigger, wherein said trigger is based on an action occurring at said data source; and a data source receiving said medical data and storing said medical data. However, Drexler teaches status monitor for controlling the transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor monitors actions occurring at data source and controls said centralized remote data store and said data source to transfer said medical data from said centralized remote data store to said data source

based on trigger, wherein said trigger is based on an action occurring at said data source; and a data source receiving said medical data and storing said medical data (col. 6, lines 4-16). As soon as the data lost in the medium restoration is triggered and restore the data with the backup. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include event triggering for restoration process soon as the data stored on the card is lost as taught by Drexler in order to restore any lost data from the processing system.

Regarding on claim 16, Rothschild teaches a second data source storing medical data (a remote user) (col. 22, lines 35-40).

Regarding on claim 17, Rothschild teaches the status monitor controls the transfer of said copy of said medical data between said remote data store and said second data source (location identified) (col. 22, lines 35-40).

Regarding on claim 18, Rothschild teaches the status monitor verifies the transfer of said copy of said medical data between said remote data store and said second data source (it also assures prompt delivery of a report from the remote user and back through the ASP system to other location identified) (col. 22, lines 38-40).

Regarding on claim 20, Rothschild teaches the status monitor verifies said transfer of said medical data between data source and said remote data store (it also assures prompt delivery of a report from the remote user and back through the ASP system to other location identified) (col. 22, lines 38-40).

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of view of Drexler (US. Patent No. 6,338,433 B1) and further in view of Alisuage (Pub. No. 2002/0083192 A1).

Regarding on claim 19, Rothchild and Drexler do not explicitly teach an access authenticator for authenticating access to said remote data store. However, Rothchild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Drexler system to include authenticating access medical data server as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of view of Drexler (US. Patent No. 6,338,433 B1) and further in view of Dethloff (US. Patent No. 5,902,981)

Regarding on claim 23, Rothschild and Drexler do not explicitly teach the remote data store restores said medical data at said data source. However, Dethloff discloses wherein said remote data store further restores said medical data to said data store (col. 1, lines 44-51). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Drexler

system to include the restoring the medical data in the event of lost as taught in Dethloff in order to restore the original files back to the system.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of view of Drexler (US. Patent No. 6,338,433 B1) and further in view Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claim 24, Rothschild and Drexler not explicitly teach the remote data store comprises at least one directory corresponding to said data source. However, Parvulescu teaches "so, if Doctor Gooden is performing the procedures on patient John Doe, then the captured images are stored in a folder called "Gooden", with each file in the folder incorporating a standard syntax including patient's name, image number, hospital/practice name, time & date, and procedure information as described above" (col. 9, lines 23-28). This teaches the captured images of the treated patient are organized in the memory as the folder or directory. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the Rothschild and Drexler system to include the captured images data to store in the folder or directory in order to easily retrieve the file the in the organized database.

12. Claims 25-29, 31-34 and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) and in

view of Sameshima et al. (US. Patent No. 6,038,564) and further in view of Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claim 25, Rothschild teaches a method for remotely archive data said method comprising:

Detecting an operation involving medical data executed at a medical data source, said data operation including said medical data at said medical data source (soon as the record input to a local image work station and archiving locally, the database management automatically pushes the electronic records and associated images to the remote image viewing system) (col. 22, lines 24-67); and

storing the medical data at said centralized remote data store (once the electronic record (5) is received at central data management system (30), it is stored at the remote location and automatically routed., via "push" delivery...) (col. 18, lines 63-67), wherein said trigger is produced by status monitor after said operation occurs, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application (a medical imaging system 10) (col. 18, lines 29-31).

Rothchild does not explicitly teach transferring said medical data from said medical data source to a centralized remote data store based on a trigger, wherein said trigger produced by a status monitor after said operation occurs, and indexing said medical data according to said data source. Sameshima discloses "a data integration management table 233 defines reference sources of respective data to be integrated and the names of the data, and also defines an

output option, etc. when the integrate data are delivered to the application program for detecting events such as an event based on a periodic timer in the self processing device...A status control table 234 sets conditions to start/end the collection of the data set in the event linking data table 232 and the integration of the data set in the data integration management table 233..." (col. 5, lines 18-51). This suggests the status monitor monitors the collection of data and triggers a transmission of collected data from the data source to the processing device. The modification is required to perform the transfer process. Furthermore, Parvulescu teaches, "in accordance with a preferred embodiment, the stored images are indexes via a predictable syntax..." (col. 4, lines 51-60) and "preferably, the pictures will have been backed up onto a system server or other persistent storage prior to freeing to the local storage" (col. 5, lines 2-4). The medical images are indexed in backup data storage as they are indexed local terminal. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Sameshima system to include indexing the medical images after the medical image being capture and transfer from the source taught in Parvelescu in order to centralize the data in the server for backup protection and accessing purposes.

Regarding on claim 26, Rothschild teaches the step of obtaining said medical data (col. 22, lines 66-67).

Regarding on claim 27, Rothschild teaches the step of storing said medical data at said data source (stored at the workstation) (col. 18, lines 46-48).

Regarding on claim 28, Rothschild and Sameshima do not explicitly teach storing step further comprises storing said medical data at said remote in a directory corresponding to said data source. However, Parvulescu teaches "so, if Doctor Gooden is performing the procedures on patient John Doe, then the captured images are stored in a folder called "Gooden", with each file in the folder incorporating a standard syntax including patient's name, image number, hospital/practice name, time & date, and procedure information as described above" (col. 9, lines 23-28). This teaches the captured images of the treated patient are organized in the memory as the folder or directory. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the Rothschild and Sameshima system to include the captured images data to store in the folder or directory in order to easily retrieve the file the in the organized database.

Regarding on claim 29, Rothchild teaches transferring step further comprises verifying said transfer of medical data from said remote data store to said data source (col. 32, lines 35-39).

Regarding on claims 31-34, Rothschild and Sameshima do not explicitly teaches said transferring step occurs after a definable interval comprises a timed interval, event-based interval, and a manual interval. However, Rothchild teaches the automatically pushes the medical image to the central data management system (30) at a remote location (col. 18, lines 53-56) and once the electronic record (5) is received at central data management system (30), it is stored a the remote location and automatically routed., via "push" delivery to one



or more remote image viewing system (col. 8, lines 63-67). This is the event based transferring. On the other hand, Parvulescu discloses "the picture are stored on the image archiving device 100' local hard disc drive 18 in a "session" format, one patient name being attached to a session. The session by be kept on local storage for any suitable period of time (e.g., 4 or 72 hours selectable) or until a user chooses to manually erase them. At convenient times (e.g., nightly or art periodic interval (e.g., every 72 hours erased and the disc storage freed for subsequently operations (e.g., the following morning). Preferably, the pictures will have been backed up onto a system server or other persistence storage to freeing the local storage" (col. 4, lines 61-67 to col. 5, lines 1-4). By erasing the medical data in the local drive manually and timed interval the system would have to back up these data based on these. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothchild and Sameshima system to include backing up data at timed interval and manually as taught by Parvulescu in order to allow the medical data to be backup for future restoration processes.

Regarding on claim 53, Rothschild teaches a dedicated network connection for transferring said medical data between said medical data source and said centralized remote medical data store (col. 19, lines 36-39).

Regarding on claim 54, Rothschild teaches a private network connection for transferring said medical data between said data source and said centralized remote data store (non publish accessed) (col. 19, lines 36-39).

13. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Sameshima et al. (US. Patent No. 6,038,564) and further in view of Parvulescu et al. (US. Patent No. 6,678,764 B2) and further in view of Alisuag (Pub. No. 2002/0083192 A1)

Regarding on claim 30, Rothschild and Sameshima and Parvulescu do not explicitly teach authenticating access to said remote data store. However, Rothschild discloses (login) (col. 22, line 29). On the other hand, Alisuag discloses authenticating access to said remote data store (paragraph 0045). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Sameshima and Parvulescu system to include authenticating access medical data server as taught by Alisuag in order to grant access to restricted medical file only to authorized person or application.

14. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Sameshima et al. (US. Patent No. 6,038,564) and further in view of Parvulescu et al. (US. Patent No. 6,678,764 B2) and further in view of Dethloff (US. Patent No. 5,902,981).

Regarding on claim 35, Rothschild and Sameshima and Parvulescu do not explicitly teach the step of restoring said medical data to said data source from said remote data source. However, Dethloff discloses the step of restoring said medical data to said data source from said remote data source (col. 1, lines 44-

51). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Sameshima and Parvulescu system to include the restoring the medical data in the event of lost as taught in Dethloff in order to restore the original files back to the system.

Regarding on claim 36, Rothchild and Sameshima and Parvulescu do not explicitly teach the step of copying said medical data from said remote data source to a second data source. However, Dethloff teaches the step of copying said medical data from said remote data source to a second data source (col. 1, lines 44-51). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild and Sameshima and Parvulescu system to include the restoring by copy the medical data into the medium as taught in Dethloff in order to restore the original files back to the system.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

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period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

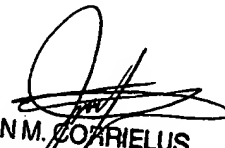
Commissioner of Patents and Trademarks  
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) -273-8300 [Official Communication]

BQ To

June 10, 2006

  
JEAN M. COARIELUS  
PRIMARY EXAMINER

<b>Notice of References Cited</b>	Application/Control No. 09/681,471	Applicant(s)/Patent Under Reexamination SILVA-CRAIG ET AL.	
	Examiner Baoquoc N. To	Art Unit 2162	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,038,564	03-2000	Sameshima et al.	707/10
*	B	US-6,338,433	01-2002	Drexler, Jerome	235/462.01
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

# Index of Claims



Application/Control No.

09/681,471

Examiner

Baoquoc N. To

Applicant(s)/Patent under  
Reexamination

SILVA-CRAIG ET AL.

Art Unit

2162

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
Final	Original	6/10/08									
	1	v									
	2	v									
	3	v									
	4	v									
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**Search Notes**

Application/Control No.

09/681,471

Examiner

Baoquoc N. To

Applicant(s)/Patent under  
Reexamination

Art Unit

2162

**SEARCHED**

Class	Subclass	Date	Examiner
707	10, 202	6/6/2006	BTO
707	10/202	6/6/2006	BTO

**INTERFERENCE SEARCHED**

Class	Subclass	Date	Examiner

**SEARCH NOTES  
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
updated search	6/6/2006	BTO
Updated search	6/6/2006	BTO
Updated search	6/8/2006	



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,471	04/13/2001	Milton Silva-Craig	15-IS-5715	7327

23446 7590 08/24/2006  
MCANDREWS HELD & MALLOY, LTD  
500 WEST MADISON STREET  
SUITE 3400  
CHICAGO, IL 60661

EXAMINER

TO, BAOQUOC N

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/681,471

Applicant(s)

SILVA-CRAIG ET AL.

Examiner

Baoquoc N. To

Art Unit

2162

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 12 August 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See *Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).

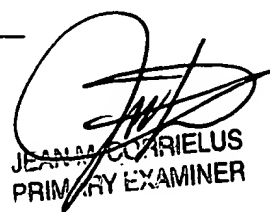
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-9, 11-20, 23-36, 53 and 54.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
JEANNE CORIELUS  
PRIMARY EXAMINER

Continuation of 3. NOTE: the amendment raises new issues that would require further search and/or consideration .



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,471	04/13/2001	Milton Silva-Craig	15-IS-5715	7327

23446 7590 09/19/2006

MCANDREWS HELD & MALLOY, LTD  
500 WEST MADISON STREET  
SUITE 3400  
CHICAGO, IL 60661

EXAMINER

TO, BAOQUOC N

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**  
**Before the Filing of an Appeal Brief**

Application No.

09/681,471

Applicant(s)

SILVA-CRAIG ET AL.

Examiner

Baoquoc N. To

Art Unit

2162

**-The MAILING DATE of this communication appears on the cover sheet with the correspondence address -**

THE REPLY FILED 13 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☒ Applicant's reply has overcome the following rejection(s): 112 rejection.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-9, 11-20, 23-36, 53 and 54.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: After carefully reviewing applicants remarks, the examiner maintains the grounds of 103(a) rejection in the Final Office action dated on 06/13/2006.

Applicant also argues "a data-source in Rothschild does not wait for any trigger to transmit medical data for storage. Thus, Rothschild does not teach or suggest elements of at least claim 1."

The examiner respectfully disagrees with the above argument. As Rothschild disclosure, the local image workstation (20) archives the data locally, and then "pushes" (as explained in detail below) the electronic record to central data management system (30) at a remote location, as described in detail below." (col. 18, lines 53-56). Rothschild's disclosure suggests the after locally archive then pushes to the central data management system 30. The triggering occurs at the local image workstation wherein the data is pushed the central management system only after the data locally archiving.

Applicant also argues "Kumagai does not remedy the shortcoming of Rothschild. Kumagai does not teach or suggest at least a status monitor that (1) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor as to other component of the system to transmit the image data..."

The examiner respectfully disagrees with the above argument. As to Kumagai's disclosure, most medical data is collected at irregular intervals from different human or machine sources, and is stored as a record in databases in the server computers. Some data regularly comes from various kinds of monitoring machines and directly enters the processing unit memory of file server 11..." (col. 14, lines 61-67 to col. 15, lines 1-45). Kumagai suggests the concept of collecting data from data monitoring machine and stores in the memory of the file server 11. Kumagai is not explicitly but rather implicitly to indicate the data monitoring machine monitor the collect data from different human or machine sources and triggers the collection based on the irregular interval in which can be the time based event or even an operator.

Applicant argues "Like Kumagai, Sameshima does not teach or suggest any status monitor at all. Rather, Sameshima only a plurality of processing devices that mutually communicate data to one another via a transmission medium. (Sameshima, col. 4, lines 37-40.)

The examiner respectfully disagrees with the above argument. Like Kumagai, Sameshima discloses the monitoring system to collect data based on an event. Further, Sameshima is more explicit regarding a status monitoring wherein the status monitor control table 234 sets conditions to start/end the collection of the data set in the set in data integration management table 233. Status control processing 225 is a program for detecting... (col. 5, lines 41-51). Sameshima's teaching, clearly shows that the monitoring occur at the processing device by setting conditions to start/end the collection of the data set.



DEBBIE LE  
PRIMARY EXAMINER

9/15/06



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,471	04/13/2001	Milton Silva-Craig	15-IS-5715	7327

23446 7590 09/22/2004  
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CHICAGO, IL 60661

EXAMINER

TO, BAOQUOC N

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 09/22/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

B

**Office Action Summary**

Application No.

09/681,471

Applicant(s)

SILVA-CRAIG ET AL.

Examiner

Baoquoc N To

Art Unit

2172

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11-20, 23-36, 53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-20, 23-36, 53 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1, 15 and 25 are amended, claims 9-10 and 21-22 are canceled, and claims 53-54 are newly added. Claims 1-8, 11-20, 23-36 and 53-54 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 15 and 25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7-8, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2).

Regarding on claims 1, Rothschild teaches a central medical data archiving system, said system comprising:

A medical data source providing medical data, where said medical data comprises at least one of a medical image, a medical patient report, and a medical application (a medical imaging system 10) (col. 18, lines 29-31);

A status monitor for controlling the transfer of said medical data from said data source to a centralized remote data store, where said status monitor monitors



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operations occurring at at least one of said data source and centralized remote data store and triggers transfer of said medical data to said centralized remote data store based on said operations (the medical image centers track the entire process of image workstation (20) merely by reference to the local image workstation (20) located in their respective clinic or hospital) (col. 29, lines 12-16); and

A centralized remote medical data store receiving said medical data and storing said medical data, wherein said centralized remote medical data store comprises an application service provider (ASP delivery the medical image from the medical image system 10 to the central servers (30' and 30") (col. 28, lines 32-67).

Although, Rothschild does not explicitly teach the status monitor for controlling the transfer of said medical data from said data source to a centralized remote data store. However, Rothschild discloses medical image center track the entire process of image delivery and review from the local image workstation (20) merely by reference to the local image workstation (20) located in their respective clinic or hospital. The medical image center is the status monitor. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include the medical image center to perform the same functionality as the claimed invention.

Regarding on claim 2, Rothschild teaches status monitor verifies said transfer of said medical data from said data source to said remote data store (col. 29, lines 16-29).

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Regarding on claim 3, Rothschild teaches an access authenticator for authenticating access to said remote data store by said data source (login) (col. 22, line 29).

Regarding on claim 4, Rothschild teaches access authenticator authenticates access to said data source (login) (col. 22, line 29).

Regarding on claim 5, Rothschild teaches said data source further stores medical data (the local workstation stored medical image data) (col. 28, lines 41-48).

Regarding on claim 7, Rothschild teaches the remote data store stores a copy of said medical data (the central storage system (130) stores all electronic record (5) at two central back-up sites one at 30' and 30") (col. 28, lines 41-51).

Regarding on claim 8, Rothschild teaches a second data source for storing medical data, wherein said remote data store transfers said medical data to said second data source (the central data management system (30) actively "push" the electronic record (5) and associated images (6) to the remote image viewing system (40) of the radiologists and referring doctors as soon as the images are available) (col. 22, lines 24-28).

Regarding on claims 11-14, Rothschild teaches the automatically pushes to the medical images to the remote image viewer and the backup sites (col. 28, lines 59-62). Therefore, the system of Rothschild does not need to employ the time interval or event-based interval or a manual interval.

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4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703) in view of Xu et al. (US. Patent No. 6,675,271 B1).

Regarding on claim 6, Rothschild does not teach the remote data store further restores said medical data to said data source. However, Xu teaches "by using the foregoing techniques, security can be provided for image data and other medical data. The data can be quickly and conveniently restored in the event of failure, during servicing and during archive or medium replacement" (col. 1, lines 29-32). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include the restore in the event of failure as taught in Xu in order to restore the original files back to the system.

5. Claims 15-20, 24-34 and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Parvulescu et al. (US. Patent No. 6,678,764 B2).

Regarding on claim 15, Rothschild teaches a system for remotely accessing a centralized data store, said system comprising:

A centralized remote data store storing medical data indexed according to data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application, wherein said centralized remote data store comprises an application service provider (the central data management system stores the

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information from the automated forms of entry to the record via the respective local image workstation (20)) (col. 22, lines 25-67);

A status monitor for controlling the transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor monitors actions occurring at data source and controls said centralized remote data store and said data source to transfer said medical data from said centralized remote data store to said data source based on trigger, wherein said trigger is based on an action occurring at said data source (The central data management system (30) actively "push" the electronic record (5) and associated images (6) to the remote image viewing system (40) of the radiologists and referring doctors as soon as the images are available) (col. 22, lines 24-28); and

A data source receiving said medical data and storing said medical data (each of the location s where the image needed, the remote image viewing station (40) would be running and available at all times on the Internet in order to achieve immediate "push" delivery of the image as soon as they become available) (col. 22, lines 33-39).

Rothschild teaches the centralized data management system received and stored in the central database (30' and 30"). However, Rothschild does not teach the medical data stored in the centralized remote data store, is indexed. On the other hand, Parvulescu teaches the medical image processing system (title) which allows the stored images are indexes via a predictable syntax, whether the user enters specific information via a keyboard or handheld terminal 212 (e.g., patient and doctor names), or uses the image archiving device 100 without the keyword or terminal 212) (col. 4, lines

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51-56). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include the indexing the medical images as taught in Parvelescu in order to ease future management and retrieval of image.

Regarding on claim 16, Rothschild teaches a second data source storing medical data (a remote user) (col. 22, lines 35-40).

Regarding on claim 17, Rothschild teaches the status monitor controls the transfer of said copy of said medical data between said remote data store and said second data source (location identified) (col. 22, lines 35-40).

Regarding on claim 18, Rothschild teaches the status monitor verifies the transfer of said copy of said medical data between said remote data store and said second data source (it also assures prompt delivery of a report from the remote user and back through the ASP system to other location identified) (col. 22, lines 38-40).

Regarding on claim 19, Rothschild teaches an access authenticator for authenticating access to said remote data store (login) (col. 22, lines 28-30).

Regarding on claim 20, Rothschild teaches the status monitor verifies said transfer of said medical data between data source and said remote data store (it also assures prompt delivery of a report from the remote user and back through the ASP system to other location identified) (col. 22, lines 38-40).

Regarding on claim 24, Rothschild does not explicitly teach the remote data store comprises at least one directory corresponding to said data source. However,

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Parvulescu teaches "so, if Doctor Gooden is performing the procedures on patient John Doe, then the captured images are stored in a folder called "Gooden", with each file in the folder incorporating a standard syntax including patient's name, image number, hospital/practice name, time & date, and procedure information as described above" (col. 9, lines 23-28). This teaches the captured images of the treated patient are organized in the memory as the folder or directory. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the Rothschild's system to include the captured images data to store in the folder or directory in order to easily retrieve the file the in the organized database.

Regarding on claim 25, Rothschild teaches a method for remotely archive data said method comprising:

Detecting an operation involving medical data executed at a medical data source (soon as the record input to a local image work station, the database management automatically pushes the electronic records and associated images to the remote image viewing system) (col. 22, lines 24-67);

Transferring said medical data from said medical data source to a centralized remote data store based on a trigger, wherein said trigger is produced based on said operation executed at said data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application (the medical image of the patient is automatically pushed to the remote image viewing as soon as record inputted) (col. 22, lines 24-67);

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Storing said medical data at said centralized remote data store (a central storage system (130) associated with central data management system (30) stores all electronic records (5) at two central back-up site (30', 30") (col. 28, lines 59-62); and

Rothschild teaches storing the medical data into the central backup site (30' and 30") excepting for indexing said medical data according to said data source. However, Parvulescu teaches, "in accordance with a preferred embodiment, the stored images are indexes via a predictable syntax" (col. 4, lines 51-60). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Rothschild's system to include the indexing the medical images as taught in Parvelescu in order to ease future management and retrieval of image.

Regarding on claim 26, Rothschild teaches the step of obtaining said medical data (col. 22, lines 66-67).

Regarding on claim 27, Rothschild teaches the step of storing said medical data at said data source (stored at the workstation) (col. 22, lines 46-48).

Regarding on claim 28, teaches storing step further comprises storing said medical data at said remote data store in a directory in a directory corresponding to said data source.

Regarding on claim 29, teaches transferring step further comprises verifying said transfer of medical data from said remote data store to said data source (col. 32, lines 35-39).

Regarding on claim 30, Rothschild teaches authenticating access to said remote data store (login) (col. 22, line 29).

Regarding on claims 31-34, Rothschild teaches the automatically pushes to the medical images to the remote image viewer and the backup sites (col. 28, lines 59-62). Therefore, the system of Rothschild does not need to employ the time interval or event-based interval or a manual interval.

Regarding on claim 53, Rothschild teaches a dedicated network connection for transferring said medical data between said medical data source and said centralized remote medical data store (col. 19, lines 36-39).

Regarding on claim 54, Rothschild teaches a private network connection for transferring said medical data between said data source and said centralized remote data store (non publish accessed) (col. 19, lines 36-39).

6. Claims 23 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothschild et al. (US. Patent No. 6,678,703 B2) in view of Parvulescu et al. (US. Patent No. 6,678,764 B2) and further in view of Xu et al. (US. Patent No. 6,675,271 B1).

Regarding on claims 23 and 35-36, Rothschild does not explicitly teach the remote data store restores said medical data at said data source. However, Xu teaches "by using the foregoing techniques, security can be provided for image data and other medical data. The data can be quickly and conveniently restored in the event of failure, during servicing and during archive or medium replacement" (col. 1, lines 29-32). This teaches the restore is done in the event of failures. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify



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Rothschild's system to include the restore in the event of failure as taught in Xu in order to restore the original files back to the system.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is (703) 305-1949 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at (703) 305-9790.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:


(703) 872-9306 [Official Communication]

Hand-delivered responses should be brought to:

Crystal Park II  
2121 Crystal Drive  
Arlington, VA 22202  
Fourth Floor (Receptionist).

Baoquoc N. To

September 15, 2004



JEAN M. CORRIELUS  
PRIMARY EXAMINER

<b>Notice of References Cited</b>	Application/Control No. 09/681,471	Applicant(s)/Patent Under Reexamination SILVA-CRAIG ET AL.	
	Examiner Baoquoc N To	Art Unit 2172	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,675,271	01-2004	Xu et al.	711/161
	B	US-6,678,764	01-2004	Parvulescu et al.	707/10
	C	US-6,678,703	01-2004	Rothschild et al.	707/201
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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	P					
	Q					
	R					
	S					
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**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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